

ARCHIVES OF NEUROLOGY

The ARCHIVES OF NEUROLOGY is a member of the consortium of AMA journals listed below. The complete text of all AMA journals is available online directly from AMA as well as the following aggregators: Dialog Information Services, Proquest, Ovid Technologies, Inc, Gale Research, and EBSCO.

The Journal of the American Medical Association (JAMA)

Archives of Dermatology
Archives of Facial Plastic Surgery
Archives of General Psychiatry
Archives of Internal Medicine
Archives of Neurology
Archives of Ophthalmology
Archives of Otolaryngology—Head & Neck Surgery
Archives of Pediatrics & Adolescent Medicine
Archives of Surgery

The ARCHIVES OF NEUROLOGY (ISSN 0003-9942) is published monthly by the American Medical Association, 515 N State St, Chicago, IL 60610-0946, and is an official publication of the Association. The ARCHIVES OF NEUROLOGY reaches more than 13 800 readers in over 79 countries each month. Periodicals postage paid at Chicago, IL, and at additional mailing offices. GST registration number 12622 5556 RT. Canada Post International Publications Mail (Canadian Distribution) Sales Agreement No. 318973. Printed in the USA.

SUBSCRIPTION RATES—

	Individual Print	Individual Print & Online	Individual Online Only
US	\$225	\$235	\$180
Americas	\$275	\$290	\$220
Rest of World	£195	£205	£155
	Institution Print	Institution Print & Online	Institution Online Only
US	\$350	\$365	\$280
Americas	\$450	\$475	\$360
Rest of World	£295	£310	£235

Rates for residents and medical students available.

CHANGE OF ADDRESS—POSTMASTER, send all address changes to ARCHIVES OF NEUROLOGY, c/o Subscriber Services, American Medical Association, 515 N State St, Chicago, IL 60610. Please notify us of address change at least 6 weeks in advance to ensure uninterrupted service. Include both old and new addresses, a recent mailing label, and new ZIP code. For mailing addresses outside the United States and the Americas, see below.

SUBSCRIPTION INFORMATION—Subscription inquiries for mailing addresses in the US and the Americas: For fastest service, direct inquiries regarding missing issues, address changes, subscription billing, subscription renewal, or back issue purchases as shown below: **AMA members:** Phone: 800-262-3211 between 8:30 AM-4:45 PM CST; Fax: 800-262-3221; E-mail: masc@ama-assn.org. **Other physicians and nonphysician customers:** Phone: 800-262-2350 or 312-670-7827 (same hours as above); Fax: 312-464-5831; E-mail: ama-subs@ama-assn.org. Mail inquiries should be directed to the Unified Service Center, American Medical Association, PO Box 10946, Chicago, IL 60610-0946. For mailing addresses outside the US and the Americas: Contact JAMA and Archives Journals, American Medical Association, Tower House, Sovereign Park, Market Harborough, Leicestershire LE15 9EF, UK. Phone: +44 (0) 1858-438880; Fax: +44 (0) 1858-434958; E-mail: amasubscription.co.uk.

REPRINTS—Authors place their reprint order at the time the edited typescript is reviewed and should allow 4 to 6 weeks for delivery following publication. Requests for individual reprints should be sent directly to the author at the address shown in the article.

For bulk reprint orders for distribution by commercial organizations, please contact Wanda Bartolotta, 2441 84th St, Brooklyn, NY 11214. Phone: (718) 946-7424. Fax: (718) 946-7372. E-mail: wanda_bartolotta@ama-assn.org. For reprint orders in limited quantities for distribution by educational organizations and for author reprints, please contact Reprints Coordinator, 515 N State St, Chicago, IL 60610. Phone: (312) 464-4594. Fax: (312) 464-4849.

PERMISSIONS—Contact Rhonda Bailey, Permissions Assistant, 515 N State St, Chicago, IL 60610. Phone: (312) 464-2513.

ADVERTISING PRINCIPLES—Each advertisement in this issue has been reviewed and complies with the principles governing advertising in AMA scientific publications. A copy of these principles is available on request. The appearance of advertising in AMA publications is not an AMA guarantee or endorsement of the product or the claims made for the product by the manufacturer.

WORLD WIDE WEB ADDRESS—<http://www.ama-assn.org>

NEUROLOGY HOME PAGE—<http://www.archneuro.com>

Publication Staff
Offices: 515 N State St, Chicago, IL 60610

Editorial Processing Department

Division Director: Cheryl Iverson
Director: Paula Glitman
Copyediting Manager: Brenda Gregoline
Freelance Copyediting Manager: Diane L. Cannon
Freelance Copyediting Coordinators: Lauren B. Fischer
Connie Manno
Editorial Systems Managers: Paul Frank
Monica Mungle
Systems Programmer/Internet Specialist: J. D. Neff
Senior Copy Editor: Vicky Golden
Copy Editors: Juana M. Llorens
Rachel Novickas
Cheryl L. Tobey
Rachel Bodzin Young
Editorial Assistant: Wanda Hill

Scientific Publications & Multimedia Applications

Assistant to the Editor: Helga Fritz

Scientific Online Resources

Director: Margaret Winker, MD
Electronic Media Department Director: Michelle Kurzynski
Associate Web Editors: Katherine Behar
Erin M. Giannini
Web Office Manager: Marla A. Hall

Specialty Journal Division Office

Manager, Marketing Services: Geoffrey A. Flick
Assistant to the Publisher: Christine Hearne

Circulation & Content Marketing Division

Administrative Assistant: Millette Jackson-Bates

Circulation Processing Department

Director: Karen Howes
Circulation Systems Manager: Alfred Tomaselli
Circulation Specialists: Reginald Jordan
Kathryn Osten
Assistant Application Administrator: Julie Burton

Circulation Development Department

Director: Bina Oza Trivedi
Circulation Marketing Managers: Vida Damijonaitis
Donna Goldman
Michael McGraw
Circulation Marketing Specialist: Sandra Garzon

Licensing & Permissions Department

Director: Norman Frankel
Permissions: Rhonda Bailey

Production & Distribution Division

Directors: Karen Adams-Taylor,
Paul Gasiccki, Vanessa Hayden
Managers: David Antos, Karen Branham,
Debbie Camp, Diane Darnell,
Karl Elvin, Betty Frigerio,
Terri Hanley, Mary Ellen Johnston,
Carole Piszker, Susan Price,
Charl Richey, Carmela Ware
Production Assistant: Kristy Kambanis
Production Associates and Specialists:
Advertising and Production Services:
LaWanda Brown, Susan Chiara,
Mary Anne Donley, Brian McCartney,
Sarah Powell, Denise Steinhauer,
Ellen Yoshihara
Composition: Rebecca Aiken,
Brenda Chandler-Grayer, Amy Evers,
Fred Furtner, Mary Ann Kuranda,
Sandra Lopez
Database & New Media:
Bruce McGregor (indexer),
Clifford O. Barrett, Gail Barrett,
Regina Brownlee, Rowena F. Dagang,
John Marcinek, La'son Diggs Sledge,
Angela Smits
Distribution: Linda Alexander,
Michelle Robinson
Graphics: Joe Amft, Noel Chaparro,
Carolyn Hall, Maria Kowalkowski,
Chris Meyer, JoAnne Weiskopf
Proofreading: Daniel James,
Teresa H. Omiotek,
Mary Kay Tinerella,
Barbara Wojtowicz,
Agnes A. Zarkadas

Advertising

Director, Advertising Sales: Peter G. Messina
AMA Classified Advertising Department: Thalia Moss, 800-262-2260
Advertising Office:
East: Barbara Napoli
119 Cherry Hill Rd, 3rd Flr
Parsippany, NJ 07054
(973) 263-9191
Midwest/West: J. P. Cahill & Associates
341 S Waiola Ave
La Grange, IL 60525
(708) 352-1450



ARCHIVES OF NEUROLOGY

FEBRUARY 2002 VOLUME 59, NUMBER 2 PAGES 169-336

EDITORIAL

- Refractory Status Epilepticus in 2001** 188
Thomas P. Bleck, MD

NEUROLOGICAL REVIEW

- Poststroke Seizures** 195
Isaac E. Silverman, MD;
Lucas Restrepo, MD;
Gregory C. Mathews, MD, PhD

ORIGINAL CONTRIBUTIONS

- Refractory Status Epilepticus: Frequency, Risk Factors, and Impact on Outcome** 205
Stephan A. Mayer, MD;
Jan Claassen, MD;
Johnny Lokin, MD;
Felicia Mendelsohn, BA;
Lyle J. Dennis, MD;
Brian-Fred Fitzsimmons, MD

- Reduction of Plasma 24S-Hydroxycholesterol (Cerebrosterol) Levels Using High-Dosage Simvastatin in Patients With Hypercholesterolemia: Evidence That Simvastatin Affects Cholesterol Metabolism in the Human Brain** 213
Sandra Locatelli, PhD;
Dieter Lütjohann, PhD;
Hartmut H.-J. Schmidt, MD;
Carsten Otto, MD;
Ulrike Beisiegel, PhD;
Klaus von Bergmann, MD

- A Controlled Prospective Study of Neuropsychological Dysfunction Following Carotid Endarterectomy** 217

Eric J. Heyer, MD, PhD; Ruchey Sharma, BA; Anita Rampersad, BA; Christopher J. Winfree, MD; William J. Mack, BA; Robert A. Solomon, MD; George J. Todd, MD; Paul C. McCormick, MD; James G. McMurtry, MD; Donald O. Quest, MD; Yaakov Stern, PhD; Ronald M. Lazar, PhD; E. Sander Connolly, MD

- Use of Lipid-Lowering Agents, Indication Bias, and the Risk of Dementia in Community-Dwelling Elderly People** 223

Kenneth Rockwood, MD, FRCPC; Susan Kirkland, PhD; David B. Hogan, MD, FRCPC; Chris MacKnight, MD, MSc, FRCPC; Heather Merry, MSc; René Verreault, MD, PhD; Christina Wolfson, PhD; Ian McDowell, PhD

- Clinical and Radiological Correlates of Reduced Cerebral Blood Flow Measured Using Magnetic Resonance Imaging** 233

Vincent N. Thijs, MD; Alessandro Adami, MD; Tobias Neumann-Haefelin, MD; Michael E. Moseley, PhD; Gregory W. Albers, MD

- Progression of Corpus Callosum Atrophy in Alzheimer Disease** 243

Stefan J. Teipel, MD; Wolfram Bayer, MD; Gene E. Alexander, PhD; York Zebuhr, MD; Diane Teichberg; Luka Kulic, MD; Marc B. Schapiro, MD; Hans-Jürgen Möller, MD; Stanley I. Rapoport, MD; Harald Hampel, MD

JAMA
&
ARCHIVES
JOURNALS
American Medical Association

All articles published, including editorials, letters, and book reviews, represent the opinions of the authors and do not reflect the policy of the American Medical Association, the Editorial Board, or the institution with which the author is affiliated, unless this is clearly specified.

Catherine D. DeAngelis, MD, MPH
Editor in Chief, Scientific Publications
& Multimedia Applications

Nawin Gupta, PhD
Vice President, Publishing

Peter L. Payerli
Publisher

Cheryl Iverson
Managing Editor

Michael D. Maves, MD, MBA
Executive Vice President,
Chief Executive Officer

Robert A. Musacchio, PhD
Senior Vice President,
Publishing & Business Services

Copyright 2002 by the American Medical Association. All rights reserved.
Reproduction without permission is prohibited.

Irreversible Disability and Tissue Loss in Multiple Sclerosis: A Conventional and Magnetization Transfer Magnetic Resonance Imaging Study of the Optic Nerves 250
Matilde Inglesse, MD; Angelo Ghezzi, MD; Stefania Bianchi, MD; Simonetta Gerevini, MD; Maria Pia Sormani, PhD; Vittorio Martinelli, MD; Giancarlo Comi, MD; Massimo Filippi, MD

Middle Cerebral Artery Stenosis Is a Major Clinical Determinant in Striatocapsular Small, Deep Infarction 259
Oh Young Bang, MD; Ji Hoe Heo, MD; Jung Yeon Kim, MD; Jae Hyun Park, MD; Kyoony Huh, MD

Biochemical-Clinical Correlation in Patients With Different Loads of the Mitochondrial DNA T8993G Mutation 264
Valerio Carelli, MD, PhD; Alessandra Baracca, PhD; Silvia Barogi, PhD; Francesco Pallotti, MD, PhD; Maria Lucia Valentino, MD; Pasquale Montagna, MD; Massimo Zeviani, MD; Antonella Pini, MD; Giorgio Lenaz, MD; Agostino Baruzzi, MD; Giancarlo Solaini, PhD

Bicaudate Ratio as a Magnetic Resonance Imaging Marker of Brain Atrophy in Multiple Sclerosis 275
Robert A. Bermel; Rohit Bakshi, MD; Christopher Tjoa; Srinivas R. Puli, MD; Lawrence Jacobs, MD

Spectrum of SPG4 Mutations in a Large Collection of North American Families With Hereditary Spastic Paraplegia 281
Inge A. Meijer, BSc; Collette K. Hand, PhD; P. Cossette, MD, MSc; Denise A. Figlewicz, PhD; Guy A. Rouleau, MD, PhD

OBSERVATIONS

Corneal Endothelial Degeneration in Dentatorubral-Pallidolusian Atrophy 289
Daisuke Ito, MD; Masakazu Yamada, MD; Masataka Kawai, MD; Tomohiko Usui, MD; Junnich Hamada, MD; Yasuo Fukuuchi, MD

ARCHIVES OF NEUROLOGY

Editor:

Roger N. Rosenberg, MD
Department of Neurology
University of Texas Southwestern
Medical Center
5323 Harry Hines Blvd
Dallas, TX 75390-9108

Associate Editors:

Steven T. DeKosky, MD
Pittsburgh, Pa
Hassan M. Fathallah-Shaykh, MD
Chicago, Ill
Christopher G. Goetz, MD
Chicago, Ill
Susan T. Iannaccone, MD
Dallas, Tex
David E. Pleasure, MD
Philadelphia, Pa
E. S. Roach, MD
Dallas, Tex
Ira Shoulson, MD
Rochester, NY

Assistant Editors:

Lawrence S. Honig, MD, PhD
New York, NY
Matthew Menken, MD
Princeton, NJ

Editorial Assistant:

Jenny Kang
Dallas, Tex

Editorial Office

(214) 648-9383
fax: (214) 648-9388
e-mail: archneurol@mednet.swmed.edu

Section Editors:

Neurological Review Editor:
David E. Pleasure, MD
Philadelphia, Pa
**Controversy in Neurology/
Consensus in Neurology Editor:**
Steven T. DeKosky, MD
Pittsburgh, Pa

**Basic Science Seminars
in Neurology Editor:**
Hassan M. Fathallah-Shaykh, MD
Chicago, Ill

NeuroTherapeutics Editor:

Ira Shoulson, MD
Rochester, NY

History of Neurology Editor:

Christopher G. Goetz, MD
Chicago, Ill

Neurology and Public Health Editor:

Matthew Menken, MD
Princeton, NJ

Book Review Editor:

Susan T. Iannaccone, MD
Dallas, Tex

Web Editor:

Lawrence S. Honig, MD, PhD
New York, NY

CME Editor

Matthew Menken, MD
Princeton, NJ

Editorial Board

James I. Ausman, MD, PhD
Chicago, Ill
Louis R. Caplan, MD
Boston, Mass
Mahlon R. DeLong, MD
Atlanta, Ga
James A. Ferrendelli, MD
Houston, Tex
John H. Growdon, MD
Boston, Mass
Vladimir Hachinski, MD, DSc
London, Ontario
Audrey S. Penn, MD
Bethesda, Md
Stanley B. Prusiner, MD
San Francisco, Calif
Bruce R. Ransom, MD, PhD
Seattle, Wash
Thomas R. Swift, MD
Augusta, Ga
Kenneth L. Tyler, MD
Denver, Colo
Paul C. Van Ness, MD
Dallas, Tex

International Advisory Committee

Johan A. Aarli, MD
Bergen, Norway
Oded Abramsky, MD, PhD
Jerusalem, Israel
Samir F. Atweh, MD
Beirut, Lebanon
Paula Coutinho, MD, PhD
Porto, Portugal
Alexandra Dürr, MD
Paris, France
Bruno Estanol, MD
Mexico City, Mexico
Cesare Fieschi, MD
Rome, Italy
Hans J. Freund, MD
Düsseldorf, Germany
Wang Guo-Xiang, MD
Beijing, China
Sang-Bok Lee, MD, PhD
Seoul, Korea
Colin Masters, MD
Melbourne, Victoria, Australia
Sergio Novis, MD
Rio de Janeiro, Brazil
Michael Piradov, MD
Moscow, Russia
Nippon Pongvarin, MD, FRCP
Bangkok, Thailand
Anthony H. V. Schapira, DSc, MD, FRCP
London, England
Bhim S. Singhal, MD
Bombay, India
Erik Stalberg, MD
Uppsala, Sweden
Eduardo Tolosa, MD
Barcelona, Spain
Shoji Tsuji, MD, PhD
Niigata, Japan

Intrafamilial Phenotypic Variability in Friedreich Ataxia Associated With a G130V Mutation in the FRDA Gene <i>Dominick J. H. McCabe, MRCPI;</i> <i>Nicholas W. Wood, FRCP; Fergus Ryan, PhD;</i> <i>Michael G. Hanna, MD; Sean Connolly, MD;</i> <i>David P. Moore, MRCPI;</i> <i>Janice Redmond, MD;</i> <i>David E. Barton, PhD;</i> <i>Raymond P. Murphy, FRCP</i>	296
--	-----

HYPOTHESIS

Medical Hypothesis: Why Secondary Progressive Multiple Sclerosis Is a Relentlessly Progressive Illness <i>Robert M. Herndon, MD</i>	301
---	-----

IMAGES IN NEUROLOGY

Uncal Herniation in Acute Subdural Hematoma: Point of No Return <i>Elco F. M. Wijdicks, MD</i>	305
--	-----

Sural Nerve Without Nerve Fibers in Leprous Neuropathy <i>Roberto Massa, MD; Maria Morello, MSc;</i> <i>Giuseppe Sancesario, MD;</i> <i>Giorgio Bernardi, MD</i>	306
--	-----

HISTORY OF NEUROLOGY: SEMINAL CITATIONS

Five Hundred Years of Brain Images <i>David E. J. Linden, MD, DPhil (Oxon)</i>	308
--	-----

Attention-Deficit/Hyperactivity Disorder <i>Thomas J. Spencer, MD</i>	314
---	-----

Infantile Spasms: West Syndrome <i>Lionel Carmant, MD</i>	317
---	-----

BOOK REVIEWS

Diagnosis and Management of Alzheimer's Disease and Other Dementias <i>David S. Knopman, MD</i>	319
---	-----

Intractable Focal Epilepsy <i>James J. Cereghino, MD</i>	319
--	-----

Neurological Eponyms <i>H. Richard Tyler, MD</i>	320
--	-----

CORRECTION

Correlation Between Aβx-40-, Aβx-42-, and Aβx-43-Containing Amyloid Plaques and Cognitive Decline <i>S. Parvathy, PhD; Peter Davies, PhD;</i> <i>Vahram Haroutunian, PhD; Dushyant P. Purohit, MD;</i> <i>Kenneth L. Davis, MD; Richard C. Mohs, PhD;</i> <i>Helen Park; Thomas M. Moran, PhD;</i> <i>Joseph Y. Chan, MS; Joseph D. Buxbaum, PhD</i>	202
--	-----

REGULAR DEPARTMENTS

This Month in Archives of Neurology	186
--	-----

Call for Papers	187, 189
------------------------	----------

ARCHIVES CME	321
---------------------	-----

American Society for Experimental Neurotherapeutics Abstracts	324
--	-----

Calendar	328
-----------------	-----

Classified Advertising	331
-------------------------------	-----

Index to Advertisers	335
-----------------------------	-----

Instructions for Authors—
See January 2002 issue, page 158, or visit the Web site at www.archneurol.com