

**Editor:** George D. Lundberg, MD  
**Deputy Editor:** M. Therese Southgate, MD  
**Senior Editors:** John D. Archer, MD, Helene M. Cole, MD, Bruce B. Dan, MD  
**Senior Contributing Editor:** Drummond Rennie, MD  
**Contributing Editors:** Charles B. Clayman, MD, Lawrence D. Grouse, MD, PhD, Lester S. King, MD, Harriet S. Meyer, MD, Carlotta M. Rinke, MD  
**Statistical Editor:** Naomi Vaisrub, PhD  
**Morris Fishbein Fellow:** Don Riesenberg, MD  
**Medical News—Editor:** Phil Gunby; **Associate Editors:** Kimberly Glasbrenner, Marsha F. Goldsmith, Charles Marwick (Washington, DC), Beverly Merz; **Assistant Editor:** Chris Anne Raymond, PhD  
**Associate Editor:** Roxanne K. Young  
**Assistant Editors:** Charlene Breedlove, Sharon Iverson (Letters to the Editor), Elizabeth Knoll  
**Editorial Services Manager:** Martha Carney  
**Production Manager:** Marlene M. Hirsch  
**Assistant Production Manager:** John R. Sayban  
**Editorial Processing Manager:** Cheryl Iverson  
**Assistant Editorial Processing Manager:** Paula Giltman

**Permissions and Graphic Design:** Dennis J. Shipley  
**Production Supervisors:** Lori A. Barba (Copy Editing), Thomas J. Handrigan (Illustrations), Elizabeth Petrikenas (Proofreading), John R. Sayban (Advertising), Mary C. Steermann (Editorial), Jo Anne Weiskopf (Layout)  
**Copy Editing:** Vickey Golden (Free-lance Coordinator), Daniel Halibey, Patricia A. Predey, James Zrimsek  
**Proofreading:** Hemranee Bhoyroo, Patricia Coyne, Lisette Sabbach, Barbara Wojtowicz  
**Senior Production Assistants:** Karen Branham, Diane Darnell, Jerri Hall-Gortowski, Jill Harvey, Debra Lucas, Terese Noto, Susan Price, Ellen Yoshihara  
**Production Assistant:** Darlene E. Filips  
**Illustrations and Layout:** Donna Hagler, Mary Planek-Vanco, Sandra Williams

**Cover Editor:** M. Therese Southgate, MD  
**Editorial Coordinator:** Cathy Watkins  
**Editorial Supervisor:** Cassandra Johnson  
**Editorial Assistants:** Mary Cannon, Michele Knutsen, Mary Ann Lilly, Rosemary Navarro, Annette Nunnally, Ethel Pinkston, Theresa Raines, Elsa Rigoni, Diane Theriault

**Senior Secretary:** Shirley Goins  
**Indexing:** Norman Frankel (Supervisor), Mary Kay Tinerella, Pam Wood

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

**JAMA, THE JOURNAL of the American Medical Association** (ISSN 0098-7484), is published four issues per month by the American Medical Association, 535 N Dearborn St, Chicago, IL 60610. Phone (312) 645-5000. Cable address "Medic" Chicago.

**SUBSCRIPTION RATES**—The subscription rate per year for members of the AMA is \$2 included in the annual membership dues. The subscription rate per year for nonmembers is \$52 for one year, \$90 for two years in the United States and US possessions; in all other countries, one year, \$68; two years, \$110 (add \$30 surcharge to each one-year subscription and \$60 surcharge to each two-year subscription for air delivery to the United Kingdom and Europe only). Rates to medical students and residents, \$26 for one year, \$45 for two years in the United States and US possessions. Rates for subscriptions for delivery to Australia, Bangladesh, India, Japan, Nepal, New Zealand, South Korea, and Sri Lanka are available through respective exclusive agents. Address all subscription communications to American Medical Association, Circulation and Fulfillment Division, 535 N Dearborn St, Chicago, IL 60610. Phone: (312) 280-7154.

**CHANGE OF ADDRESS**—POSTMASTER, send all address changes to Caryl L. Wertheimer, Director of Fulfillment, 535 N Dearborn St, Chicago, IL 60610. Notification of address change must be made at least six weeks in advance; include both old and new addresses, a recent mailing label, and your new zip code.

Second-class postage paid at Chicago and additional mailing office.

JAMA<sup>®</sup> Registered in the US Patent and Trademark Office.

Copyright © 1986 by the American Medical Association



## THE COVER

**Frank Netter (1906- ), Heart** ..... 2117  
 American. Opaque watercolor on cold-pressed board (1969). 33.0x24.8 cm.  
 CIBA Collection of Medical Illustrations, vol 5, section 1, plate 9.  
 Courtesy of CIBA Pharmaceutical Co, division of CIBA-GEIGY Corp, Summit, NJ.

## MEDICAL NEWS & PERSPECTIVES ..... 2121

**Frank Netter, MD: 'Command Performance' in Medical Art . . . Miscellanea Medica**

## LEADS FROM THE MMWR ..... 2129

## INSTRUCTIONS FOR AUTHORS ..... 2144

## SPECIALTY ABSTRACTS ..... 2148

## REFERENCE DIRECTORIES

**US Meetings, April 4; Foreign Meetings, Jan 10; Organizations of Medical Interest, Jan 24/31; State Associations and Exams and Licensure, Jan 17; AMA Officials, Oct 4**

## LETTERS ..... 2157

**Electric- and Lightning-Induced Cardiac Arrest Reversed by Prompt Cardiopulmonary Resuscitation** K. T. Moran, MD, J. N. Thupari, MD, A. M. Munster, MD, Baltimore . . .  
**Response to Deltoid Muscle Injection of Hepatitis B Vaccine After Failure to Respond to Gluteal Injections** D. J. Weber, MD, W. A. Rutala, PhD, S. A. Kenyear, RN, S. M. Lemon, MD, Chapel Hill, NC . . .  
**The Retrieval of Medical Literature** J. S. Rucker, MA, P. M. Elwell, MSLS, Columbus, Ohio, D. P. Dabney, JD, MLIS, Austin, Tex, D. S. Channin, Paris, M. F. Collen, MD, Oakland, Calif, P. C. Amadio, MD, Rochester, Minn . . .  
**Accidents and All-Terrain Vehicles** G. W. Trager, MD, PhD, G. Grayman, MD, Palm Springs, Calif . . .  
**Public Funds and the Injured Motorcyclist** D. Morris, MD, West Columbia, SC, A. A. Vernon, MD, Baltimore, T. J. Bray, MD, Sacramento, Calif, B. R. Bach, Jr, MD, E. T. Wyman, Jr, MD, Boston . . .  
**Densitometry of the Peripheral Skeleton to Detect Osteopenia** G. L. Bilbrey, MD, San Antonio, Tex, R. B. Mazess, PhD, Madison, Wis . . .  
**Compulsiveness in Physicians** A. C. Worden, MD, Marquette, Mich, G. O. Gabbard, MD, Topeka, Kan . . .  
**Pen Pusher's Paresthesia** M. Hauswald, MD, Albuquerque . . .  
**Cerebral Infarction, Lupus Anticoagulant, and Habitual Abortion** J. S. Greenspoon, MD, Los Angeles, D. O. Wiebers, MD, J. P. Whisnant, MD, Rochester, Minn

## ORIGINAL CONTRIBUTIONS

**Human T-Cell Lymphotropic Virus Type III Infection in a Cohort of Homosexual Men in New York City** ..... 2167

C. E. Stevens, MD; P. E. Taylor, PhD; E. A. Zang, PhD;  
 J. M. Morrison, MA; E. J. Harley, MS; S. Rodriguez de Cordoba, PhD;  
 C. Bacino, MD, New York; R. C. Y. Ting, PhD,  
 A. J. Bodner, PhD, Rockville, Md; M. G. Sarngadharan, PhD, Kensington, Md;  
 R. C. Gallo, MD, Bethesda, Md; P. Rubinstein, MD, New York

**Epidemiology of Murine Typhus in Texas** ..... 2173

J. P. Taylor, MPH; T. G. Betz, MD, MPH; J. A. Rawlings, MPH, Austin, Tex

**Impact of a Rural High Blood Pressure Control Program on Hypertension Control and Cardiovascular Disease Mortality** ..... 2177

J. M. Kotchen, MD, MPH; H. E. McKean, PhD; S. Jackson-Thayer, RN;  
 R. W. Moore, PhD; R. Straus, PhD; T. A. Kotchen, MD, Lexington, Ky

## LANDMARK PERSPECTIVE

**Amniotic Fluid Embolism** ..... 2183

K. Sperry, MD, Albuquerque

## LANDMARK ARTICLE

**Maternal Pulmonary Embolism by Amniotic Fluid** ..... 2187

P. E. Steiner, MD, PhD, C. C. Lushbaugh, BS, Chicago

**CONTENTS—Continued**

**COMMENTARY**

**Mass Intervention vs Screening and Selective Intervention for the Prevention of Coronary Heart Disease** ..... 2204  
 R. E. Olson, MD, PhD, Stony Brook, NY

**CASE REPORT**

**Diagnosis of the Partial Androgen Insensitivity Syndrome During Infancy** ..... 2207  
 P. A. Lee, MD, PhD, Pittsburgh; T. R. Brown, PhD, Baltimore;  
 H. A. LaTorre, MD, Youngstown, Ohio

**EDITORIALS**

**The ARCHIVES OF SURGERY, New England Surgical Society, and JAMA** ..... 2210  
 A. E. Baue, MD, St Louis

**Keep Murine Typhus in Mind** ..... 2211  
 T. E. Woodward, MD, Baltimore

**A PIECE OF MY MIND**

**Faith Healers** ..... 2213  
 J. Padawer, PhD, Bronx, NY

**PHOTO/ESSAY**

**Exfoliated Cytopathology of *Acanthamoeba* Keratitis** ..... 2216  
 C. E. Margo, MD; J. H. Brinser; L. Groden, MD, Tampa, Fla

**QUESTIONS AND ANSWERS** ..... 2219

**Classroom Carpet and Infection Transmission** R. Aronow, MD, Detroit . . . **Metal Migration and Consumption in Food** N. Selvey, RD, Chicago . . . **Carcinoma In Situ in Vocal Cord Polyp** W. C. LeLiever, MD, Indianapolis A. R. Harwood, MB, ChB, FRCP, Lafayette, La

**BOOKS** ..... 2223

**Dostoevsky and the Healing Art** (Rice) Reviewed by F. Butzen, Chicago . . . **The People's Book of Medical Tests** (Sobel, Ferguson) Reviewed by C. E. Speicher, MD, Columbus, Ohio . . . **The Health Detective's Handbook** (Legator, Harper, Scott, eds) Reviewed by G. G. Caldwell, MD, Atlanta . . . **Women, Sport and Performance** (Wells) Reviewed by M. M. Shangold, MD, Washington, DC . . . **Smoking and the Lung** (Cumming, Bonsignore, eds) Reviewed by W. M. Foster, PhD, Stony Brook, NY . . . **Books Received**

**OBITUARIES** ..... 2228

**CLASSIFIED ADVERTISING** ..... 2232

**CME Corner** ..... 2244

**INDEX TO ADVERTISERS** ..... 2244

**CORRECTIONS** ..... 2164

**Health Implications of Smokeless Tobacco Use**

Office of Medical Applications of Research, Bethesda, Md

**Full-Text Medical Literature Retrieval by Computer**

M. F. Collen, MD, Oakland, Calif, C. D. Flagle, DEng, Baltimore

**AMA Officers**

**President:** Harrison L. Rogers, Jr, MD\*; **President-Elect:** John J. Coury, Jr, MD\*; **Immediate Past President:** Joseph F. Boyle, MD; **Secretary-Treasurer:** George L. Collins, Jr, MD\*; **Speaker, House of Delegates:** James E. Davis, MD; **Vice-Speaker, House of Delegates:** John L. Clowe, MD

**AMA Trustees**

David J. Brailer (student); Lonnie R. Bristow, MD; Rufus K. Broadaway, MD; George L. Collins, Jr, MD\* (Secretary); Ronald M. Davis, MD (resident); John H. Dawson, MD; William S. Hotchkiss, MD\* (Chairman); Robert E. McAfee, MD; Alan R. Nelson, MD\* (Vice-Chairman); Joseph T. Painter, MD\*; John J. Ring, MD\*; Raymond Scalettar, MD; Jerald R. Schenken, MD; John Tupper, MD  
 \*Executive Committee

**EDITORIAL BOARD**

- Kenneth A. Arndt, MD**  
 Boston  
**Byron J. Bailey, MD**  
 Galveston, Tex  
**Arthur E. Baue, MD**  
 St Louis  
**Donald J. Dalessio, MD**  
 La Jolla, Calif  
**Cecilia M. Fenoglio, MD**  
 Albuquerque  
**William H. Foege, MD**  
 Atlanta  
**Renee C. Fox, PhD**  
 Philadelphia  
**Daniel X. Freedman, MD**  
 Los Angeles  
**Vincent A. Fulginiti, MD**  
 Tucson  
**Morton F. Goldberg, MD**  
 Chicago  
**Marilyn Heins, MD**  
 Tucson  
**Edward C. Hill, MD**  
 San Francisco  
**James F. Holland, MD**  
 New York  
**King K. Holmes, MD, PhD**  
 Seattle  
**Harold G. Jacobson, MD**  
 Bronx, NY  
**Robert J. Joynt, MD**  
 Rochester, NY  
**Richard L. Landau, MD**  
 Chicago  
**Daniel J. McCarty, MD**  
 Milwaukee  
**William W. McLendon, MD**  
 Chapel Hill, NC  
**Arno G. Motulsky, MD**  
 Seattle  
**Robert E. Rakel, MD**  
 Houston  
**Domeena C. Renshaw, MD**  
 Chicago  
**Martha M. Sarasua, MD, PhD**  
 Charleston, SC  
**Alfred Soffer, MD**  
 Park Ridge, Ill  
**Robert M. Veatch, PhD**  
 Washington, DC

**Executive Vice-President:** James H. Sammons, MD  
**Senior Deputy Executive Vice-President:** James S. Todd, MD  
**Deputy Executive Vice-President:** Whalen M. Strobhar  
**Assistant Executive Vice-President:** M. Roy Schwarz, MD  
**Vice-President, Scientific Information:** George D. Lundberg, MD  
**Vice-President, Publishing and Marketing:** John T. Baker  
**Director, Publication Production and Printing Division:** Norman D. Richey  
**General Sales Manager; Director, Advertising Sales and Promotion Services Division:** D. Joseph Dennehy  
**Director, Circulation-Fulfillment Division:** Lee A. Parent  
**Director, Promotion and Western Sales:** Thomas J. Carroll  
**Director, Advertising Services:** Raymond Christian  
**ADVERTISING OFFICES:** Eastern: 600 Third Ave, Suite 700, New York, NY 10016 (**Manager:** Robert C. Corcoran [212-867-6640]; **Representatives:** Bill Tice, Cliff Vanderhoof); **Midwest/Farwest:** 535 N Dearborn St, Chicago, IL 60610 (**Manager:** Thomas J. Carroll [312-280-7182]; **Representative:** Daniel T. Mjolsness); **Classified Advertising:** Delores Boudentt (312-280-7190)

**ADVERTISING PRINCIPLES**—Advertisements in this issue have been reviewed to comply with the principles governing advertising in AMA 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.