

# MERIT BADGE SERIES



# MEDICINE



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STEM-Based

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*“Enhancing our youths’ competitive edge through merit badges”*



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# Requirements



**Edward Jenner**



**Marie Curie**

1. Discuss with your counselor the influence that EIGHT of the following people had on the history of medicine:
  - a. Hippocrates
  - b. William Harvey
  - c. Antonie van Leewenhoek
  - d. Edward Jenner
  - e. Florence Nightingale
  - f. Louis Pasteur
  - g. Gregor Mendel
  - h. Joseph Lister
  - i. Robert Koch
  - j. Daniel Hale Williams
  - k. Wilhelm Conrad Roentgen
  - l. Marie and Pierre Curie
  - m. Walter Reed
  - n. Karl Landsteiner
  - o. Alexander Fleming
  - p. Charles Richard Drew
  - q. Helen Taussig
  - r. James Watson and Francis Crick
  - s. Jonas Salk
2. Explain the Hippocratic Oath to your counselor, and compare the original version to a more modern one. Discuss to whom those subscribing to the original version of the oath owe the greatest allegiance.

3. Discuss the health-care provider–patient relationship with your counselor, and the importance of such a relationship in the delivery of quality care to the patient. Describe the role of confidentiality in this relationship.
4. Do the following:
  - a. Describe the roles the following people play in the delivery of health care in your state. (Note: Not all may exist in your state.)
    - (1) Allopathic physician
    - (2) Chiropractor
    - (3) Emergency medical technician
    - (4) Licensed practical/vocational nurse
    - (5) Medical assistant
    - (6) Medical laboratory technologist
    - (7) Nurse-midwife
    - (8) Nurse practitioner
    - (9) Occupational therapist
    - (10) Optometrist
    - (11) Osteopathic physician
    - (12) Pharmacist
    - (13) Physical therapist
    - (14) Physician assistant
    - (15) Podiatrist
    - (16) Psychologist
    - (17) Radiologic technologist
    - (18) Registered nurse
    - (19) Respiratory therapist
  - b. Describe the educational and licensing requirements for FIVE of those in 4a—other than 4a(1)—practicing health care in your state.
5. a. Tell what is meant by the term “primary care” with regard to a medical specialty. Briefly describe the types of work done by physicians in the following “core” specialties:
  - (1) Internal medicine\*
  - (2) Family medicine\*
  - (3) Obstetrics/gynecology\*



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\*Primary care specialties

- (4) Pediatrics\*
- (5) Psychiatry
- (6) Surgery

b. Describe the additional educational requirements for these specialties.

6. a. Briefly describe the types of work performed by physicians in FIVE of the following specialties or subspecialties:

- (1) Allergy/immunology
- (2) Anesthesiology
- (3) Cardiology
- (4) Colon and rectal surgery
- (5) Dermatology
- (6) Emergency medicine
- (7) Endocrinology
- (8) Gastroenterology
- (9) Geriatric medicine
- (10) Hematology/oncology
- (11) Infectious disease
- (12) Nephrology
- (13) Neurosurgery
- (14) Neurology
- (15) Nuclear medicine
- (16) Ophthalmology
- (17) Orthopedic surgery
- (18) Otolaryngology/head and neck surgery
- (19) Pathology
- (20) Physical medicine and rehabilitation
- (21) Plastic, reconstructive, and maxillofacial surgery
- (22) Preventive medicine
- (23) Radiology
- (24) Rheumatology
- (25) Thoracic/cardiothoracic surgery
- (26) Urology
- (27) Vascular surgery

b. Describe the additional educational requirements for the FIVE specialties or subspecialties you chose in 6a.



7. a. Visit a physician's office<sup>†</sup>, preferably one who delivers "primary care." (This may be that of your counselor.) Discuss the components of a medical history and physical examination (an official BSA health form may be used to guide this discussion), and become familiar with the instruments used.
- b. Describe the characteristics of a good diagnostic test to screen for disease (e.g., routine blood pressure measurement). Explain briefly why diagnostic tests are not "perfect."
- c. Show how to take a blood pressure and a pulse reading.
8. Do the following:
  - a. Discuss the roles medical societies, employers, the insurance industry, and the government play in influencing the practice of medicine in the United States.
  - b. Briefly tell how your state monitors the quality of health care within its borders, and how it provides care to those who do not have health insurance.
9. Discuss with your counselor the health-care delivery systems in the United States, Sweden, and China.
10. Serve as a volunteer at a health-related event or facility in your community (e.g., blood drive, "health fair," blood pressure screening, etc.) approved by your counselor.

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<sup>†</sup> If this cannot be arranged, demonstrate to your counselor that you understand the components of a medical history and physical, and discuss the instruments involved.



# Resources

## Scouting Literature

*Animal Science, Dentistry, First Aid, Personal Fitness, Public Health, Veterinary Medicine, and Wilderness Survival* merit badge pamphlets

Visit the Boy Scouts of America's official retail website at <http://www.scoutstuff.org> for a complete listing of all merit badge pamphlets and other helpful Scouting materials and supplies.

Adler, Robert E. *Medical Firsts: From Hippocrates to the Human Genome*. John Wiley and Sons, 2004.

Alter, Judy. *Surgery (21st Century Skills Innovation Library)*. Cherry Lake Publishing, 2008.

Cowen, David L., and William H. Helfand. *Pharmacy: An Illustrated History*. Harry N. Abrams, 1990.

Dawson, Ian. *Greek and Roman Medicine*. Enchanted Lion Books, 2005.

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Fridell, Ron. *Decoding Life: Unraveling the Mysteries of the Genome*. Lerner Publications, 2005.

Karlen, Arno. *Man and Microbes: Disease and Plagues in History and Modern Times*. Touchstone Books, 1996.

Kent, Deborah. *Snake Pits, Talking Cures, and Magic Bullets: A History of Mental Illness*. Twenty-First Century Books, 2003.

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Ludmerer, Kenneth M. *Time to Heal: American Medical Education From the Turn of the Century to the Era of Managed Care*. Oxford University Press, 2005.

Lyons, Albert S., and R. Joseph Petrucelli. *Medicine: An Illustrated History*, rev. ed. Harry N. Abrams, 1997.

Manjo, Guido. *The Healing Hand: Man and Wound in the Ancient World*. Harvard University Press, 1991.

Nuland, Sherwin B. *Doctors: The Illustrated History of Medical Pioneers*. Black Dog & Leventhal, 2008.

- Nunn, John F. *Ancient Egyptian Medicine*. University of Oklahoma Press, 2002.
- Risse, Guenter B. *Mending Bodies, Saving Souls: A History of Hospitals*. Oxford University Press, 1999.
- Rosenberg, Charles E. *The Care of Strangers: The Rise of America's Hospital System*. Johns Hopkins University Press, 1995.
- . *Explaining Epidemics: And Other Studies in the History of Medicine*. Cambridge University Press, 1992.
- Sacks, Terence J. *Careers in Medicine*. McGraw-Hill, 2006.
- Straus, Eugene, and Alex Straus. *Medical Marvels: The 100 Greatest Advances in Medicine*. Prometheus Books, 2006.
- Tilney, Nicholas L. *Invasion of the Body: Revolutions in Surgery*. Harvard University Press, 2011.
- Townsend, John. *Bedpans, Blood, and Bandages: A History of Hospitals*. Raintree, 2007.
- . *Pills, Powders, and Potions: A History of Medication*. Raintree, 2007.
- . *Pox, Pus, and Plague: A History of Disease and Infection*. Raintree, 2006.
- . *Scalpels, Stitches, and Scars: A History of Surgery*. Raintree, 2006.

## Organizations and Government Agencies

### American Medical Association

Toll-free telephone: 800-621-8335  
Website: <http://www.ama-assn.org>

### American Nurses Association

Website: <http://www.ana.org>

### American Society of Radiologic Technologists

Toll-free telephone: 800-444-2778  
Website:  
<http://www.asrt.org/radcademy>

### Centers for Disease Control and Prevention

Toll-free telephone: 800-232-4636  
Website: <http://www.cdc.gov>

### familydoctor.org

Website: <http://www.familydoctor.org>

### HealthCare.gov

Website: <http://www.healthcare.gov>

### healthfinder.gov

Website: <http://www.healthfinder.gov>

### Mayo Clinic

Website: <http://www.mayoclinic.com>

### MedlinePlus®

Website: <http://www.medlineplus.gov>

### National Health Information Center

U.S. Department of Health and Human Services  
Referral Specialist  
P.O. Box 1133  
Washington, DC 20013-1133  
Telephone: 240-453-8280  
Website: <http://www.health.gov/nhic>

### National Institutes of Health

Telephone: 301-496-4000  
Website: <http://www.nih.gov>

### Superintendent of Documents

U.S. Government Printing Office  
Website: <http://www.gpo.gov>

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