



Philosophy and History of Rehabilitation

Joel A. DeLisa, M.D., M.S.

**Professor and Chairman, Department of PM&R
UMDNJ-New Jersey Medical School**

Background and Early Stages

A. Roots of Physical Medicine traced to ancients

1. Heliotherapy and hydrotherapy – Roman Empire.

2. Galvanic and Faradic current - 18th and 19th centuries.

B. During and after WWI, diathermy, electrical stimulation, heat massage and exercise were used.

1. Extensive use of P.T. and O.T.

Background and Early Stages (Continued)

C. A medical specialty evolves when a small group of physicians recognizes that a special body of knowledge, along with certain skills, should be nurtured and developed so that its benefits can be made available to patients whose needs with respect to that special area are not being adequately met.

Decades

1920s – Exploratory

- American physicians investigated various means that might augment medical care, including physical agents.
- Soldiers wounded and disabled from WWI.
- AMA founded American Congress of Physical Therapy for physicians interested in the use of physical agents for diagnosis and treatment.

Decades

1920s (*cont'd*)

- Within the AMA, physicians interested in the role of physical therapeutics in medicine formed the Council on Physical Therapy (1925). Electrotherapy and radiotherapy were the primary treatments of physical medicine.

Decades

1920s (*cont'd*)

- In 1923, the American College of Radiology and Physiotherapy (ACRPT) was founded. However, the field of radiology progressed so rapidly that the American College of Radiology was created from the ACRPT and the ACRPT was reorganized into the American Congress of Physical Therapy in 1925.

Decades

1920s (cont'd)

- In January 1920, *Journal of Radiology* Vol. I, No. I, was published, which corresponds to the first issue of *Archives of Physical Medicine and Rehabilitation* (the present journal of the AAPMR). In 1925 it was called *Archives of Physical Therapy, X-ray, and Radium*. In 1938 it changed to *Archives of Physical Therapy*. And in 1945, became *Archives of Physical Medicine*.
- 1929 - Krusen established the first academic PM&R Department (Temple).

Decades

1930s – Decade of Pioneers

- Organization by a small group of physicians who wished to pursue physical therapy as a specialty.
- Concerned with physical rehabilitation of the disabled.
- Establishment at Mayo Graduate School of Medicine of the University of Minnesota. 1st 3 year residencies in Physical Medicine.

Decades

1930s - Decade of Pioneers (*cont'd*)

- **1932 Gold Key**
- Approximately 1930 roots for the ACRM
- 1938 only 42 full-time physicians practiced PM&R.

Decades

1930s - Decade of Pioneers (*cont'd*)

- 1938 AAPM&R formed – Coulter, first President
- In 1938 Dr. Krusen first proposed the term “physiatrist”.
- 1939 Krusen’s first residents – Drs. Bennett and Elkins.

Decades

1940s

- Development and utilization of organized PM&R services, and the expansion of medical practice from its focus on survival and the relief of pain, to the more comprehensive concept of restoration of the individual to the optimal function in society and the environment.
- Specialty Board 1947 – Physical Medicine.

Decades

1940s (*cont'd*)

- 1949 – ABPM&R (added rehabilitation).
- Needed 100 physicians in full-time practice of a specialty before it could have its own Board (AMA's Advisory Committee of Medical Specialties, Dr. Louis Wilson.
 - First certificate – John Coulter
 - Second Certificate- Frank Krusen

Decades

1940s (*cont'd*)

- WWII – Added comprehensive restoration to the optimal level of an individual's physical, mental, emotional, vocational and social abilities.
- 1941 – Krusen textbook *Physical Medicine*.



Frank Hammond Krusen, MD, in a portrait made in August 1935.



The 11 physiatrists who were the first members of the American Board of Physical Medicine posed for this portrait in 1948 in Chicago. Seated, from left, are John S. Coulter, Ben Strickland, Frank H. Krusen, Robert L. Bennett, and Frank H. Ewerhardt. Standing, from left, are Richard Kovacs, O. Leonard Huddleston, Walter J. Zeiter, Arthur L. Watkins, and Kristin G. Hansson.

American Board of Physical Medicine

hereby certifies that

John S. Coulter, M.D.

*has met the requirements of the Board and
is qualified to practice the specialty of*

Physical Medicine

Frank H. Krusen,

Chairman

Robert L. Bennett

Secretary



August 3, 1947

CERTIFICATE NO. 1 The American Board of Physical Medicine was organized under the auspices of the Advisory Board for Medical Specialties and at present is an affiliate Board functioning under the direction of the Committee on Standards and Examinations of the Advisory Board for Medical Specialties. The American Board of Physical Medicine has been approved by the Council on Medical Education and Hospitals of the American Medical Association. The first examinations of the American Board of Physical Medicine were held in September, 1947.

Certificate No. 1 from the American Board of Physical Medicine bears the name John S. Coulter, MD.

Landmarks

- Howard Rusk, MD – “Father of Rehabilitation Medicine” introduced the concept of active rehabilitation into the Army Air Corp Hospitals. Benefits of early and aggressive rehabilitation became obvious.



Howard A. Rusk, in a circa 1944 portrait, at a time when he was introducing a new concept in the rehabilitation of soldiers wounded in combat.

27

Landmarks (*cont'd*)

- Baruch Committee – (1943-1951) – Established by financier/philanthropist Bernard Baruch. (94)
 - Recommendations were:
 - Establishment of teaching and residents centers in PM&R at selected medical schools which showed a genuine interest in developing such a program.

Landmarks (*cont'd*)

- Establishment of fellowships and residencies in PM&R at 25 hospitals.
- The promotion of postwar and wartime physical rehabilitation.

Landmarks (*cont'd*)

- Established teaching and research centers in physical medicine in selected medical schools: Columbia, NYU, Medical College of Virginia, MIT, Harvard, University of Minnesota, USC, Iowa, Washington University, St. Louis, Illinois, George Washington University Medical School, and Marquette University.



Financier and philosopher Bernard Baruch (right) shares a park bench with Frank H. Krusen during a 1952 visit to Rochester, MN.

Landmarks (*cont'd*)

- Trained 57 Baruch fellows including Bob Boyles, Thomas Delorme, Jerry Gersten, B.C. Knudson, Fritz Kottke, Art Rodriguez, Donald Rose, and Keith Stillwell.

Landmarks (Cont'd)

- **Accomplishments**

- A marked increase in the number of medical schools teaching PM&R.
- An impressive increase in the number of residencies in PM&R. For example, in June 1949 there were 40 hospitals with residencies or fellowships offering a total of 85 positions.

Landmarks (*Cont'd*)

- **Accomplishments (*cont'd*)**
 - The rehabilitation of many thousands of wounded soldiers and sailors, as well as an even greater number of injured civilians.
 - Recognition by all of the newly established medical specialty of PM&R.
 - The establishment in 1945 of a section on Physical Medicine and Rehabilitation in the AMA.

Landmarks (*cont'd*)

- **Mary Switzer**
 - Director Office of Vocational Rehabilitation.
 - Helped develop research in PM&R.
 - Development of Research and Training Centers.

Decades (Cont'd)

1950s

- Age of Physics – physical agents should be employed in medicine.
- Early start – ABPM&R (3 years old).
- Establishment of Baruch Committee.
- Conquest of Acute Poliomyelitis.

Decades

1950s (continued)

- **Textbooks:**

- *The Principles and Practice of Rehabilitation* by Henry Kessler (1950).
- *Physical Medicine and Rehabilitation for the Clinician* by Krusen (1951).
- Licht Series started.
- *Rehabilitation Medicine* by Rush (1958).

Decades

1950s (cont'd)

- 1952 – *American Journal of Physical Medicine*, previously called *Occupational Therapy and Rehabilitation* (1922).

Decades

1960s – “Golden Years”

- Fritz Kottke leadership.
- Trend “not only to add years to life, but also, to add life to years.”
- Research and training centers (PM&R) established in medical centers.

Decades

1960s – “Golden Years” (cont’d)

- Commission on Education in PM&R (ABPM&R, ACRM, AAPM&R) – goal to develop educational facilities in medical schools. Publications dealing with manpower, education, curriculum, etc.
- In 1963 – American Psychiatric Educational Council (APEC) formed.

Decades

1960s – “Golden Years” (contd)

- In 1967 – American College of Physical Medicine and Rehabilitation changed to American Congress of Rehabilitation Medicine (ACRM).
- 1967 – AAP formed with Bill Erdman as the first President.

Decades

1970s – Achieving Respect as a Medical Society

- First AAP Newsletter – edited by Ian Maclean.
- Specialty recognizes its need for manpower; can't meet demand.
- Recognized the need to expand into medical school curriculum.

Decades

1970s – Achieving Respect as a Medical Society (continued)

- Need for academic physiatrists, especially with research skills.
- Need to develop fellowships.
- Need for outcome studies to demonstrate cost effectiveness and reduce cost of disability to society.

Decades

1980s – Growth

- GMENAC Report – PM&R a shortage specialty. Needed 4060 with only 2400 available.
- Explosive growth of inpatient rehabilitation Medicine DRG exempt unit – 1983.
- 1987 – *American Journal of Physical Medicine and Rehabilitation* named official journal of AAP with Ernie Johnson, Editor.

Decades

1980s – Growth (cont'd)

- 1987 – ABEM formed.
- 1988 – DeLisa: *Rehabilitation Medicine: Principles and Practice*.
- PM&R – ERF formed by Dick Materson.
- AAP's – Resident Program Directors Council.

Decades

1990s – PASSOR Influence

- Era Managed Care
- Era Payor
- Decade of the Brain
- NCMRR created in 1990 by statute in P.L. 101-613.

Decades

1990s – PASSOR Influence (*continued*)

- Marcus Fuhrer, PhD, first director
- Medical expansion of musculoskeletal/physical medicine
- 1990 – AAP's Resident's Council
- 1991 – Split ACRM/AAPM&R

Decades

1990s – PASSOR Influence (*continued*)

- 1992 – APEC transferred to AAP
- 1993 – AAP's Research Council
- 1994 – PASSOR formed.
- 1995 – PPS

Decades

1990s – PASSOR Influence (continued)

- March 1995: Subspecialty – Spinal Cord Injury Medicine - 437 certified
- Manpower studies – still a shortage (1996, 1999)
- 1996 – Braddom: *Physical Medicine and Rehabilitation*
- 1998 – AAP's Chairman's Council

Decades

1990s – PASSOR Influence (*cont'd*)

- March 1998: Pain Medicine – 954 certified
- Nov. 19, 1999 – ISPMR formed from consolidation of the International Federation of PM&R and the International Rehabilitation Medicine Association (IRMA)
- March 1999: Subspecialty – Pediatric Rehabilitation Medicine – 44 certified

Decades

2000s – Era of Challenge

- Era of Consumer
- Decade of Bone and Joint
- Quality of care / patient safety
- 2000 – ABPMR – Foundation – Dr. Murray Brandstater, President

Decades

2000s – Era of Challenge (cont'd)

- 2001 – PPS: Rehabilitation
- 2002 – New PM&R Foundation
- 2003 – AAP's Coordinator's Council
- 2004 – AAP's Medical Student Directors Council



The first resident in a three-year physical medicine residency was Earl C. Elkins, MD, who later served for many years as the American Board of PM&R's chief executive officer. This portrait was made in July 1935.

American Congress of Rehabilitation Medicine (ACRM)

11654 Plaza American Drive - Suite 535

Ruston, VA 20190

317-471-8760

(Continued)

- 1. American Electrotherapeutic Association – 1890 – study and promotion of electrotherapeutic measures.**
- 2. Merged in 1929 with the Western Association of Physical Therapy – physicians interested in physical therapy.**
- 3. Another organization – American College of Radiology and Physiotherapy (1923). In 1925 changed its name to the American Congress of Physical Therapy.**

American Congress of Rehabilitation Medicine (ACRM)
11654 Plaza American Drive - Suite 535
Ruston, VA 20190
317-471-8760
(Continued)

- 4. 1933 – American Physical Therapy Association and the American Congress of Physical Therapy merged. Called American Congress of Physical Medicine and Rehabilitation 1952 and the American Congress of Rehabilitation Medicine in 1996.**
- 5. Membership 2011: 1000**

American Congress of Rehabilitation Medicine (ACRM)
11654 Plaza American Drive - Suite 535
Ruston, VA 20190
317-471-8760
(Continued)

- 6.** The Congress portion of the annual scientific program in association with the American Academy of Neuro-rehabilitation.

- 7.** Owner of the *Archives of Physical Medicine and Rehabilitation*

American Congress of Rehabilitation Medicine (ACRM)
11654 Plaza American Drive - Suite 535
Ruston, VA 20190
317-471-8760
(Continued)

8. Dues:

Active (voting) - \$295

International (voting) - \$295

Emeritus - Complimentary (+ \$40 to add archive publications)

Student/Resident/Fellow - \$85

Brain Injury (ISIG & SCI) - \$30

Consumer - \$245

Early Career Transition - \$150

Institutional - \$2,000-7,000

**American Academy of Physical Medicine & Rehabilitation
(AAPM&R)**

**9700 West Bryn Mawr Avenue - Suite 200
Rosemont, IL 60018
847-737-6000**

- 1. Formed in 1938**
- 2. One of the prime aims of the group in the early 40's was to support the founding and development of a certifying board for the new specialty of physical medicine.**

**American Academy of Physical Medicine & Rehabilitation
(AAPM&R)**

9700 West Bryn Mawr Avenue - Suite 200

Rosemont, IL 60018

847-737-6000

(Continued)

3. Membership 2011:

Affiliate Member	1,239
Associate Member	253
Corresponding Member - International	212
Fellow Member	5,928
FM Past President	25
Honorary Member	8

**American Academy of Physical Medicine & Rehabilitation
(AAPM&R)**

9700 West Bryn Mawr Avenue - Suite 200

Rosemont, IL 60018

847-737-6000

(Continued)

4. Membership 2011 (cont'd):

Life Member	15
Medical Student	99
Academic Researcher	5
Part Time Fellow	35
Senior Member	459
SM Past President	7

TOTAL 7,629

**American Academy of Physical Medicine & Rehabilitation
(AAPM&R)**

9700 West Bryn Mawr Avenue - Suite 200

Rosemont, IL 60018

847-737-6000

(Continued)

5. Dues: Fellow and Associate dues are based on when they complete their residency training:

1 st year out of training -	\$240
2 nd year out of training -	\$400
3 rd year out of training and beyond -	\$645
Resident and Associate Fellow -	\$ 75
International -	\$215
Medical Student -	\$ 55
Academic Researcher	\$240
Part-Time Fellow	\$322.50

**American Academy of Physical Medicine & Rehabilitation
(AAPM&R)**

9700 West Bryn Mawr Avenue - Suite 200

Rosemont, IL 60018

847-737-6000

(Continued)

- Resident Job Fair
- Practice Oriented
- Political Advocacy
- Foundation
- Journal of Injury, Function and Rehabilitation

**American Board of Physical Medicine & Rehabilitation
(ABPM&R)**

3015 Allegro Park Lane S.W.

Rochester, MN 55902

507.282.1776

- 1.** Founded in 1947, as the American Board of Physical Medicine. Celebrated its 50th Anniversary, May 16, 1997. (Supplement May *Archives of Physical Medicine and Rehabilitation*, 1997).
- 2.** Initial certification was under the advisory capacity of the American Board of Medicine, The American Board of Orthopedics and the American Board of Radiology.

American Board of Physical Medicine & Rehabilitation (ABPM&R)
3015 Allegro Park Lane S.W.,
Rochester, MN 55902
507.282.1776
(Continued)

- 3.** 1949, was renamed the American Board of Physical Medicine and Rehabilitation.
- 4.** 2011: The number of certified diplomats is 10,319. Added this year - 334.
- 5.** Each candidate takes a written test and each candidate has three 40-minute oral exams by three separate examiners. Certifies individuals.

American Board of Physical Medicine & Rehabilitation (ABPM&R)
3015 Allegro Park Lane S.W.
Rochester, MN 55902
507.282.1776
(Continued)

- 6.** Total number of training programs is 79
- 7.** Executive Director plus 14 Directors
- 8.** Looking at issues of subspecialty, double boarding and recertification
 - First subspecialty – Spinal Cord Injury Medicine
 - Second subspecialty – Pain Management
 - Third subspecialty – Pediatric Medicine Rehabilitation
 - Fourth subspecialty – Sports Medicine
 - Fifth subspecialty – Neuromuscular Medicine
 - Sixth subspecialty – Hospice and Palliative Medicine
 - Seventh subspecialty – Brain Injury Medicine
- 9.** Time limited certificate; Maintenance of Certification

Residency Review Committee for PM&R

1. Established in 1953
2. Method for evaluation and approval of residency programs. (Accrediting Programs)
3. Consists of three representatives from the American Board of PM&R and three representatives of the Council of Medical Education of the AMA

Residency Review Committee for PM&R (*Continued*)

- 4. Meets annually - considers applications for accreditation of new residency programs and applications for renewal of accreditations**

Residency Review Committee for PM&R (*Continued*)

5. A new program that appears to have potential for success is given provisional approval for 3 years. Full approval is usually granted after 3 years of effective performance under provisional status, and accreditation is generally renewed after surveys made at 3 to 5 year intervals.

Probationary status for a program may be in order when significant questions arise regarding faculty, didactic programs, or clinical teaching and experience.

Residency Review Committee for PM&R (*Continued*)


6. The actions of the Residency Review Committee are subject to final approval by the Accreditation Council on Graduate Medical Education, which is one of its parent bodies. A residency training program, and its sponsoring institution, that is dissatisfied with a ruling or action of the Residency Review Committee can appeal at the Committee and, if advisable, the Council level

Residency Review Committee for PM&R (Continued)

7. The Executive Secretary of the Residency Review Committee is currently on the staff of the Accreditation Council on graduate Medical Education and the AMA and provides information on the activities of the Committee to the Council on education of the AMA, which annually produces the *Directory of Residency Training Programs* (Green Book)

Residency Review Committee for PM&R (Continued)

8. Another important function of the Residency Review Committee is to prepare a statement and detailed description of the special requirements for a residency training program in Physical Medicine and Rehabilitation which is published annually by the AMA in the Directory of Residency Training Programs



Association of Academic Psychiatrists (AAP)
7250 Parkway Drive – Suite 130
Hanover, MD 21076
410-712-7122

- 1.** Founded in 1967
- 2.** Its purpose is to stimulate interest in and share expertise related to undergraduate and graduate academic psychiatry.
- 3.** Became a member of the AAMC in 1970.
- 4.** Membership in 2011: 1,100

Association of Academic Psychiatrists (AAP)
7250 Parkway Drive – Suite 130
Hanover, MD 21076
410-712-7122
(Continued)

5. Dues:

Diplomate \$395

Associate \$395

International \$300

Affiliate \$325;

Associate – New (1st year out of residency) \$240

Emeritus \$155

Resident & Fellow \$97

- 6.** The AAP has sponsored workshops and sessions for improving curriculum planning and teaching skills, particularly for psychiatrists involved with educational endeavors at all levels.

Association of Academic Physiatrists (AAP)
7250 Parkway Drive – Suite 130
Hanover, MD 21076
410-712-7122
(Continued)

- 7.** The AAP provides a forum for the American Board of Physical Medicine and Rehabilitation and its residency training program directors and faculties.

- 8.** It encourages increased faculty and resident involvement in high quality basic and clinical research in both academic-based and other departments of Physical Medicine and Rehabilitation.

Association of Academic Physiatrists (AAP)
7250 Parkway Drive – Suite 130
Hanover, MD 21076
410-712-7122
(Continued)

- 9.** Its official journal is the *American Journal of Physical Medicine and Rehabilitation*.
- 10.** Has a Chairman Council, Program Directors Council, Resident Council, Program Coordinator's Council, and Administrator's Council.
- 11.** Recently added Affiliate Members (PhD) and International categories of membership.

Summary

- A. American Congress of Rehabilitation Medicine - 88 years old with approximately 1000 members.
- B. American Academy of Physical Medicine and Rehabilitation – 73 years old with 8,542 Fellows, Associate, Affiliate, Honorary, Corresponding, Life, Academic Researcher and Senior Members.
- C. American Board of Physical Medicine and Rehabilitation – 64 years old with 10,319 certified diplomates.
- D. Association of Academic Physiatrists – 43 years old with 1,000 members.

International Society of Physical and Rehabilitation Medicine (ISPRM)

Issues:

- No international PM&R curriculum
- No international accreditation standards
- No international certification standards
- No international medical specialty license
- Sub-specialization, maintenance of certification

International Society of Physical and Rehabilitation Medicine (ISPRM) (continued)

History of ISPRM (website: <http://www.isprm.org>)

- Result of merger
 - International Federation of ISPRM-1950, 1952
 - International Rehabilitation Medicine Association – 1968, 1970
- Founding organization differed
 - Membership, programs
 - Finances

International Society of Physical and Rehabilitation Medicine (ISPRM) (continued)

Missions of the ISPRM

The missions of ISPRM are fourfold:

1. To be the pre-eminent scientific and educational international society for practitioners in the field of physical and rehabilitation medicine.
2. To improve the knowledge, skills and attitudes of physicians in understanding the pathodynamics and management of impairments and disabilities
3. To help improve quality of life for people with impairments and disabilities.
4. To provide a mechanism for facilitating rehabilitation medicine input to international health organizations with special emphasis on those dedicated to the physical and rehabilitation field.

International Society of Physical and Rehabilitation Medicine (ISPRM) (continued)

Goals of the ISPRM

The goals of the ISPRM are:

1. To influence rehabilitation policies and activities of international organizations interested in the analysis of functional capacity and their improvement of individuals quality of life.
2. To help national professional organizations influence local and national governments on issues related to the field of physical and rehabilitation medicine.
3. To encourage and support the development of a comprehensive medical specialist in Physical and Rehabilitation Medicine.

International Society of Physical and Rehabilitation Medicine (ISPRM)

(continued)

Goals (cont'd)

4. To develop appropriate models for physician training and, therefore, increase involvement and participation in the physical and rehabilitation medicine process, ensuring that physicians' level of training is optimal for the needs of the community.
5. To encourage an interest in physical and rehabilitation medicine among all physicians.
6. To provide a means for facilitating research activities and communication at the international levels.
7. To provide a mechanism for facilitating international exchange regarding different aspects of rehabilitation, including the dissemination of information regarding rehabilitation-related meetings.

International Society of Physical and Rehabilitation Medicine (ISPRM) (continued)

ISPRM Agenda (cont'd)

- Establishing a conceptual definition of PRM and a definition of its field of competency
- Sharing knowledge about daily clinical practice with developing and industrialized nations
- Developing standardized international PRM curricula
- Establishing cross-cultural, pan-international exchange programs for residents, educators and researchers within the domains of teaching, patient care, and humanitarianism
- Enhancing rehabilitation research capacity
- Supporting the establishment of rehabilitation services worldwide

International Society of Physical and Rehabilitation Medicine (ISPRM) (continued)

ISPRM Agenda (cont'd)

- Developing rapid rehabilitation response to natural and man-made disasters
- Developing PRM societies in low-resource settings
- Contributing to Who guidelines and glossaries relevant to disability and rehabilitation
- Implementing the International Classification of Functioning, Disability and Health to assist in standardizing the classification of health components of function and disability
- Fighting discrimination against the disabled

International Society of Physical and Rehabilitation Medicine (ISPRM) (continued)

International Congresses:

- The Society has held five international congresses:
 - 2001 in Amsterdam, Netherlands
 - 2003 in Prague, Czechoslovakia
 - 2005 in Sao Paolo, Brazil
 - 2007 in Seoul, Korea, and
 - 2009 in Istanbul, Turkey
 - 2011 in Puerto Rico
 - The next three congresses will be held in Beijing China in 2013, and Berlin, Cancun, Mexico in 2014, Germany in 2015

International Society of Physical and Rehabilitation Medicine (ISPRM) (continued)

International Congresses (cont'd)

- Rotating World Congresses between these areas
 - Asia-Oceania
 - Americas
 - Africa, Eastern Mediterranean, Europe
- Membership
 - Active
 - National
 - Italian Model
- Dues
 - 1 year: 35 Euros
 - 2 years: 60 Euros

Reference

1. DeLisa JA, Gans BM, Walsh NE, Bockenek WL, Frontera VWR, Geiringer SR, Gerber LH, Pease WS, Robinson LS, Smith J, Stitik TP, Zafonte RO; *Physical Medicine and Rehabilitation: Principles and Practice*, 4th Edition, Lippincott/Williams & Wilkins, Philadelphia 2004: 1-1926.
2. Arch Phys Med Rehabil. Supplement 1997. *The First 50 years of the American Board of Physical Medicine and Rehabilitation.*

Reference

3. Krusen F.H., *The Scope and Future of Physical Medicine and Rehabilitation*. JAMA. 144 (9) 727-730, Oct. 28, 1950.
4. Folz, T.J., Opitz J.L., Peters J., Gelfman R., *The History of Physical Medicine and Rehabilitation as Recorded in the Diary of Dr. Frank Krusen: Part 2. Forging Ahead (1943-1947)*. Arch Phys Med Rehabil. 1997;78:446-450.
5. Koepke G.H., *The American Board of Physical Medicine and Rehabilitation: Past, Present and Future*. Arch Phys Med and Rehabil. 1972;53:10-13.

Reference

6. *Celebrating the 50th Anniversary of the American Board of Physical Medicine and Rehabilitation: A History: The First 50 Years 1947-1997.* Martin GM, Opitz J.L. (Editor). Arch Phys Med Rehabil. 17(5) Suppl 2: s1-159, May 1997.

7. Gelfman R., Peters D.J., Opitz J.L., Folz T.J. *The History of Physical Medicine and Rehabilitation as recorded in the Diary of Dr. Frank Krusen: Part 3. Consolidating the Position (1948-1953).* Arch Phys Med Rehabil. 1997;78:556-561.

Reference

8. Krusen F.H. *Historical Development in Physical Medicine and Rehabilitation During the Last 40 Years.* Arch Phys Med Rehabil. 1969;50:1-5.
9. Krusen F.H. *In Memorial:A Mighty Oak Has Fallen: Bernard M. Baruch 1870-1965.* Arch Phys Med Rehabil. 1965;46:549-552.
10. Krusen F.H. *Physical Medicine:The Employment of Physical Agents for Diagnosis and Therapy*, chaps 1 and 2. Philadelphia, WB Saunders, 1941.


Reference

11. Krusen F.H., *Report on the International Congress of Physical Medicine*. Arch Phys Med Rehabil. 1952;33:651-660.


12. Opitz, J.L., Folz T.J., Gelfman R., Peters D.J. *The History of Physical Medicine and Rehabilitation Recorded in the Diary of Dr. Frank Krusen: Part I. Gathering Momentum (the years before 1942)*. Arch Phys Med Rehabil. 1997;78:442-445.

Reference

13. Peters D.J., Gelfman R., Folz T.J., Opitz J.L. *The History of Physical Medicine and Rehabilitation as Recorded in the Diary of Dr. Frank Krusen: Part 4 Triumph Over Adversity (1954-1969)*. Arch Phys Med Rehabil. 1997;78:562-565.
14. Rusk H.A. Editorial: *The Growth and Development of Rehabilitation Medicine*. Arch Phys Med Rehabil. 1969;50:463-466.
15. Delisa J: *What is the American Physiatrist's Role in the International Physical Medicine and Rehabilitation Organization?* Am J Phys Med Rehabil 2006; 85:935-937.
16. DeLisa JA: *International Perspectives in PM&R Education and Training*. Chinese J Rehab Med 2008;23(8):676-677.



**“Invent what you can, steal what
you must, and
re-engineer / borrow everything
else.”**



“The important thing is not to stop questioning. Curiosity has its own reason for existing. One cannot help but be in awe when he contemplates the mysteries of eternity, of life, of the marvelous structure of reality. It is enough if one tries merely to comprehend a little of this mystery every day. Never lose a holy curiosity.”

Albert Einstein