

NOTES ON PHYSICAL THERAPY¹

by

MARYLAND STATE BOARD OF PHYSICAL THERAPY EXAMINERS

The wise use of Physical Therapy will be a most valuable aid to the physicians of Maryland.

This is a brief review of Physical Therapy and a short bibliography.² The reference material will be available at the Library of the Medical and Chirurgical Faculty of Maryland, 1211 Cathedral Street, Baltimore, Maryland. A list of Physical Therapists licensed to practice in the State of Maryland may be obtained without charge from Mr. C. W. Gaines, 2411 North Charles Street, Baltimore 18, Maryland.

It is hoped that this article will be a step toward the development of intelligent teamwork between the Physical Therapist and the Physician.

Definition

Physical Therapy is defined in the Law of Maryland as the treatment of human injuries, diseases or

disabilities by means of the healing properties of exercise, massage, ultraviolet rays, mechanical devices, heat, cold, air, light, water, and electricity; but not by means of Roentgen rays, radium, surgery or drugs; and a *Physical Therapist* is defined as one who treats only patients diagnosed and referred by licensed medical doctors. In a broader sense, physical therapy includes "therapeutic teaching" as well as the administration of physical treatment procedures, since patients and relatives may need to be instructed in muscle re-education technics, the use of prosthetic devices and other treatment procedures.

Practical Use of Physical Therapy

Ideally the doctor and physical therapist function as a team. If the doctor feels that physical therapy is indicated, he may send the patient to the physical

¹ Editor's Note: The State Board of Physical Therapy Examiners wishes to acquaint doctors with some of the basic features of Physical Therapy. It is hoped to stimulate interest toward a better understanding and use of Physical Therapy.

² Excerpts from "The Job of the Physical Therapist," published by the American Physical Therapy Association, are included in this material.

therapist with the diagnosis, including any additional information needed to understand the patient's condition, and a statement of the results he wishes to obtain. The doctor may specify what treatment is to be given or he may discuss the treatment plan with the physical therapist. *The Physician and the Physical Therapist should be free to discuss their patient problems with each other.* The physical therapist should report the patient's progress; and this progress report should include any unusual symptoms or adverse reaction or the failure of a patient to respond properly within a reasonable time.

Physical Therapy Records

A well qualified physical therapist will keep the following types of records:

- Medical diagnosis and prescription (by physician)
- Daily record of treatment given
- Progress report
- Postural examination chart (as indicated)
- Muscle test chart (as indicated)
- Joint range chart (as indicated)
- Electrical examination and diagnosis chart (as indicated)
- Resistance exercise record chart (as indicated)
- Therapeutic exercise chart (as indicated)
- Activities of daily living chart (eating, dressing, resting, etc.) as indicated

Some Indications for Physical Therapy

Although the majority of patients treated come from the orthopedic and neurological categories, patients from a wide variety of diagnostic groups may benefit from physical therapy. In a general hospital, for example, virtually every service may recommend physical therapy for some of its patients. A list of types of cases treated by a representative number of physical therapy departments follows. This list is to be regarded as typical rather than exhaustive.

- Amputations
- Arthritis
- Burns
- Cerebral disease and injury, such as cerebral palsy, cerebral vascular lesions
- Congenital deformities, such as club feet and torticollis
- Dislocations
- Fractures

Joint and muscle disease and injury
 Obstetrical and gynecological conditions
 Peripheral nerve disease and injury
 Peripheral vascular conditions
 Postoperative surgical conditions
 Posture
 Psychiatric conditions, such as conversion hysteria
 Skin disease and injury
 Spinal cord disease and injury, such as poliomyelitis, multiple sclerosis, traumatic lesions

Treatment Modalities

Thermotherapy or heat (diathermy, infra-red, hot packs, paraffin bath)
 Radiation or light (infra-red, ultraviolet)
 Hydrotherapy or water (whirlpool bath, contrast bath, Hubbard tub, needle spray, cold and hot packs)
 Electrotherapy (electrical stimulation, ion transfer, short and long wave diathermy)
 Massage (general, local, relaxing, stimulating)
 Therapeutic exercise (passive motion, active assistive motion, active motion, resisted motion; breathing, posture and gait training; muscle re-education; coordination and rhythm exercise; stretching; underwater exercise)
 Miscellaneous (bandaging, strapping, removal and reapplication of splints and casts as prescribed)

Diagnostic Testing

The kinds of diagnostic testing for which the physical therapist may be responsible include (1) voluntary muscle testing (muscle power), (2) electrical muscle testing, (3) joint measurements and (4) functional activity testing (such activities of daily living as eating and drinking, dressing and undressing).

The amount of diagnostic testing which the therapist is expected to do varies from center to center. In all instances where it is performed, it is carried out under the prescription and general supervision of the physician.

BIBLIOGRAPHY

The purpose of this bibliography is to acquaint you with some of the typical source material available in the field of physical medicine, and should not be considered exhaustive.

GENERAL TEXTBOOKS

- * 1. Krusen, F. H., *Physical Medicine*, Philadelphia, W. B. Saunders Co., 1941
2. Kessler, H. H., *The Principles and Practices of Rehabilitation*, Philadelphia, Lea & Febiger, 1950
- * 3. Kovács, Richard, *A Manual of Physical Therapy*, 4th ed., Philadelphia, Lea & Febiger, 1949
- * 4. *The Yearbook of Physical Medicine and Rehabilitation*, Chicago, Yearbook Publishers, 1951
- * 5. Glasser, Otto, editor, *Medical Physics*, Vol. 1 & 2, Chicago, Yearbook Publishers, 1944, 1950
- * 6. A. M. A. *Handbook of Physical Therapy*, 3rd ed., Chicago, American Medical Association Press, 1939
- * 7. Watkins, A. L., *Physical Medicine in General Practice*, Philadelphia, J. B. Lippincott Co., 1946
8. Buchwald, Edith, *Physical Rehabilitation for Daily Living*, New York, McGraw-Hill Book Co., 1952
9. Bierman, W., and Licht, S., *Physical Medicine in General Practice*, New York, Paul Hoeber, 1952

TEXTBOOKS RELATED TO SPECIFIC MODALITIES

Hydrotherapy

1. Lowman, C. L., *Techniques of Underwater Gymnastics*, Los Angeles, American Publications, Inc., 1937
- * 2. McClellan, W. S., *Hydrotherapy*, in *Modern Medical Therapy in General Practice*, edited by D. P. Barr, Baltimore, Williams & Wilkins, 1940, Vol. 1, pp. 415-434

Massage

- * 1. Mennell, J. B., *Physical Treatment by Movement, Manipulation and Massage*, 5th ed., Philadelphia, Blakiston Co., 1945
2. Böhm, Max, *Massage; its principles and technic*, edited by C. F. Painter, Philadelphia, W. B. Saunders Co., 1913

Therapeutic Exercise and Muscle Testing

1. Kraus, H., *Principles and Practices of Therapeutic Exercise*, Springfield, C. C. Thomas Co., 1949
2. Ewerhardt, F. H., and Riddle, G. F., *Therapeutic Exercise*, Philadelphia, Lea & Febiger, 1947
3. Kendall, H. O., and Florence P., *Muscles; testing and function*, Baltimore, Williams & Wilkins, 1949
4. Daniels, L., Williams, M., and Worthington, C., *Muscle; testing technique of manual examination*, Philadelphia, W. B. Saunders Co., 1947

* Books in Library of the Medical and Chirurgical Faculty.

5. DeLorme, T. L., and Watkins, A. L., *Progressive Resistance Exercise*, New York, Appleton-Century-Crofts, 1950
- * 6. Goldthwait, J. E., and others, *Essentials of Body Mechanics in Health and Disease*, Philadelphia, J. B. Lippincott Co., 1945

Body Mechanics and Posture

1. Kendall, H. O., and Kendall, F. P., *Posture and Pain*, Baltimore, Williams & Wilkins, 1952
- * 2. Goldthwait, J. E., and others, *Essentials of Body Mechanics in Health and Disease*, Philadelphia, J. B. Lippincott Co., 1945
- * 3. Lovett, R. W., *Lateral Curvature of the Spine and Round Shoulders*, 5th ed., edited by F. R. Ober and A. H. Brewster, Philadelphia, Blakiston Co., 1931

Electrotherapy

- * 1. Bierman, William, *Medical Applications of the Short Wave Current*, 2nd ed., Baltimore, Williams & Wilkins, 1942
- * 2. Kovács, Richard, *Electrotherapy and Light Therapy*, 6th ed., Philadelphia, Lea & Febiger, 1949

Thermotherapy

- * 1. Kovács, Richard, *A Manual of Physical Therapy*, 4th ed., Philadelphia, Lea & Febiger, 1949

TEXTBOOKS AND REFERENCES RELATED TO PATHOLOGICAL CONDITIONS

Amputations

1. U. S. War Dept., *Physical Therapy for Lower-extremity Amputees*, Technical Manual 8-293, Washington, Supt. of Doc., Govern. Print. Office, 1946
2. Brunnstorm, Signe, and Kerr, Donald, *Leg Amputee: Pre-prosthetic Training*, Kessler Institute for Rehabilitation, Pleasant Valley Way, West Orange, N. J., 1951

Arthritis

(refer to general textbooks and articles in the periodicals)

Burns

(refer to general textbooks and articles in the periodicals)

Cerebral Disease and Injury

1. United Cerebral Palsy Association, *Symposium: Cerebral Palsy*, *Physical Therapy Review*, 32: February, 1952

Congenital Deformities, Fractures, Dislocations, Joint and Muscle Disease and Injury

1. Standard textbooks on Orthopedic Surgery
- * 2. Journal of Bone and Joint Surgery
- * 3. Kennedy, R. H., Active exercise in fracture treatment, *Arch. Phys. Therapy* **22**: 720-723, 1941
4. A. M. A. Handbook of Physical Medicine and Rehabilitation, Philadelphia, Blakiston Co., 1950
- * 5. Wilson, P. D., Physical Therapy in Treatment of Fractures, in Principles and Practices of Physical Therapy, Hagerstown, Md., W. F. Prior Co., 1933, Vol. 2, Chap. 5

Refer to general physical medicine textbooks and periodicals on the following conditions:

Obstetrical and gynecological conditions

Peripheral vascular conditions

Post-operative surgical conditions

Peripheral nerve disease and injury

Psychiatric conditions

Skin diseases

Spinal Cord Disease and Injury

1. Deaver, G., Evaluation of Disability and Rehabilitation: Procedure of Patients with Spinal Cord Lesions, New York, Institute for Crippled and Disabled, 1948
- * 2. Kendall, H. O., and Kendall, F. P., Care During the Recovery Period in Paralytic Poliomyelitis, U. S. Public Health Service Bulletin No. 242, Washington, Govern. Print. Office, 1938
3. Poliomyelitis issue, *Physical Therapy Review*, **31**: July, 1951
4. Source material may be secured from the National Foundation for Infantile Paralysis
- * 5. Lovett, R. W., Treatment of Infantile Paralysis, 2nd ed., Philadelphia, Blakiston Co., 1917

PERIODICALS

- * 1. Archives of Physical Medicine
American Congress of Physical Medicine
30 N. Michigan Avenue, Chicago 2, Illinois

- * 2. Journal of Bone and Joint Surgery
American Orthopedic Association
8 The Fenway, Boston 15, Mass.
3. Physical Therapy Review
American Physical Therapy Association
1790 Broadway, New York 19, New York
4. British Journal of Physical Medicine
British Journal of Physical Medicine and Industrial Medicine
Butterworth & Co., Ltd.
4-6 Bell Yard
Temple Bar, W. C. 2, London, England
5. Physiotherapy, Journal of the Chartered Society of Physiotherapy
Tavistock House
Tavistock Square, London
- * 6. American Journal of Physical Medicine
Williams & Wilkins Co.
Baltimore, Md.
- * 7. Journal of Rehabilitation
National Rehabilitation Association
1025 Vermont Avenue, Washington 5, D. C.

ORGANIZATIONS

Complete source material and reviews of all recent publications pertaining to these areas may be secured from the following:

1. National Foundation for Infantile Paralysis
120 Broadway, New York 5, N. Y.
2. National Society for Crippled Children and Adults, Inc.
11 So. LaSalle St., Chicago, Illinois
3. National Rehabilitation Association
1025 Vermont Avenue, Washington 5, D. C.
4. United Cerebral Palsy Association
50 W. 57th Street, New York, N. Y.
5. National Multiple Sclerosis Society
270 Park Avenue, New York 17, N. Y.