The A-B-C's of PHYSICAL THERAPY
Physical Therapy is the treatment of illness and injury by physical means—such as the use of light, heat, water, exercise, sound, electronic waves, etc.

because...the fact is that 3 out of 4 people over age 25 will be disabled for at least 3 months sometime before they retire and will probably need some form of physical therapy.

What it does--

Physical therapy can help to--
- Improve circulation
- Strengthen muscles
- Restore motion
- Correct deformities
- Relieve pain
- Speed recovery

Thus--Restore physical and economic independence
The qualified physical therapist must be registered by the state in which he practices and licensure may be based on:

1. College preparation
2. Practical experience
3. Satisfactory completion of qualifying examinations

Schools of Physical Therapy are accredited by the American Physical Therapy Association and the American Medical Association.

The American Physical Therapy Association is a voluntary professional organization of qualified physical therapists.

The physical therapist carries out the orders of a doctor...

His services include...

1. Testing
   Patients to discover their abilities, limitations and potential for rehabilitation.

2. Training
   Patients and their families in the use and care of equipment (wheel chairs, crutches, artificial limbs, braces, home exercise programs, etc.)

3. Treating
   Patients by the use of physical agents to help overcome pain and disability.
The **GOAL** of physical therapy is to help the patient function normally via **REHABILITATION**—by helping him to:

1. **Maintain Strength**
   - Muscles often lose strength after illness or injury and must be reconditioned in order to perform as normal.

2. **Regain Motion**
   - Unaffected muscles and joints can be trained to "take over" for damaged tissue. Muscles that have lost their normal nerve supply may be retrained.

3. **Achieve Independence**
   - All treatment is aimed at helping the patient return to his home, earn a living and resume normal responsibilities, as much as he is able.

The physical therapist works with these people on the "HEALTH TEAM" to work for the patient's fullest recovery in the shortest possible time.

- **Doctors** who plan and direct the patient's treatment.
- **Nurses** who see to the patient's daily needs.
- **Physicians** who make and fit artificial limbs.
- **Orthotists** who make and fit braces.
- **Occupational Therapists** who help retrain disabled parts.
- **Vocational Counselors** who help find work the patient can do.
- **Psychiatrists** who help the patient solve the emotional problems that disabling illness or injury may cause.
- **Social Workers** who assist patients and their families to readjust to each other.

Rehabilitation requires the effort of many people, because it means social and emotional adjustments as well as physical ones.
What does a Physical Therapist do?

A physical therapist may spend time in consultation, research, teaching, administration

-- but generally, a physical therapist’s job is the supervision and direction of care of patients assigned to him.

1. Evaluate
   Patients referred by a physician.

2. Develop
   Treatment program including short and long-term goals.

3. Delegate
   Portions of treatment program to supportive personnel.

4. Instruct
   Assistants and supervise their performance.

5. Recruit
   Patients as treatment program progresses.

6. Maintain
   Contact with physician via reports and conferences.

The Physical Therapist’s Treatment Program may include--

 HYDROTHERAPY

Using water to treat injuries and disease. Water conducts heat and makes motion easier and less painful.

**WEST HEAT**

- Helps relieve pain and improve circulation. It also aids relaxation and is useful in treating some mental disturbances.

  a. Whirlpool Bath
     - Small metal containers of rapidly moving water used for treatment of arms, legs, hands and feet.

  b. Contrast Bath
     - To apply hot and cold water alternately to the same part of the body. This stimulates circulation.

**WEST COLD**

- Decreases body temperature, causes blood vessels to close and reduces blood flow. It helps prevent swelling and pain from bruises, sprains and strains.

  c. Ice Packs
     - Give surface cooling to a fairly small body area. Can be stimulant or depressant depending on length of use.

  d. Hot Packs
     - Give heat to limited area.

  e. Hubbard Bath
     - Large tanks of heated moving water -- big enough to float the whole body. Used for heat and gentle exercise of large portions of body.

  f. Swimming Pool
     - To allow overall exercise and freedom of movement.
--and the physical therapist's treatment program may include--

**2. HEAT and LIGHT**

- to relieve pain, increase circulation and help the patient relax.

**a. CONDUCTIVE HEATING**
- transfer of heat from a warm object to a colder one.

These methods are often used at home. Remember that in many illnesses and injuries, people react more severely to heat than normally and could be burned.

**b. INFRARED HEATING**
- supplies heat to large areas with no pressure. Infrared rays are short. Often used before massage or exercise therapy.

**c. DIATHERMY**
- deep heat treatment by one of two methods
  1. **Short wave**
     - High frequency radio waves used for chronic joint and muscle pain. Not as deep as microwave or ultrasound.
  2. **Microwave**
     - Electromagnetic radiation used for heating of a small area. Useful in conditions such as arthritis and bursitis.

**d. ULTRASOUND**
- Sound frequencies too high to hear raise internal temperature without a corresponding increase of skin temperature. Useful in treating tightness of muscles, joints, bursitis.

**e. ULTRAVIOLET LIGHT**
- long rays provide light instead of heat

**Skin Conditions and Infections**
- acne, psoriasis, bedsores and some wounds. The rays cause erythema—changes in skin pigment such as takes place in suntanning.

**Vitamin D deficiency**
- The vitamin which babies need for healthy bone growth and to prevent rickets.
The most common treatment is

**EXERCISE THERAPY**

Based on neurophysiological principles, it is used to improve muscle strength, correct limitations of motion, and maintain good health.

a. **PASSIVE EXERCISE**
   The therapist or the use of equipment exercises a part of the patient's body without patient's help. It is used when muscles are very weak or paralyzed. Prevents stiffening of muscles and joints from lack of use.

b. **ASSISTIVE EXERCISE**
   The patient is helped to perform motions which he is unable to do by himself. To help rebuild strength, the amount of assistance is gradually reduced.

c. **ACTIVE EXERCISE** (also called free exercise)
   The patient performs by himself while the therapist supervises to make sure the activity is being done correctly and is not too tiring. This type of exercise builds strength and aids general body conditioning.

d. **RESISTIVE EXERCISE**
   To carry out the activity the patient has to overcome some type of resistance -- for example, gravity or added weight. Used to build strength and endurance when recovery is nearly complete.

**also--two other important muscle-training methods...**

**STRETCHING**
Gentle forcing of motion in a relaxed part of the body by the physical therapist. This stretches stiff joints and muscles to help increase the patient's range of motion.

**RELAXATION**
Learning how to relax specific parts of the body through conscious effort. Relaxation training helps save strength and prevent fatigue. It often includes breathing exercises.

**TRACTION**
Using weight or tension to stretch joints and muscles to reduce pain and increase motion in lower back conditions and whip lash injuries of the neck.

Therapeutic exercise is helpful in treating loss of movement, rebuilding power, endurance, coordination, range of motion, speed, and achieving functional independence.
All of the physical therapist's treatment is aimed at restoring physical efficiency via **FUNCTIONAL TRAINING**

To restore the ability to do things easily, enjoyably and without tiring.

FUNCTIONAL TRAINING is particularly important in helping permanently disabled people to greater independence in the activities of daily living—

1. **SELF-CARE**
   - Including personal cleanliness, hair care, dressing, eating, etc.
   - care and use of equipment needed for daily living.

2. **AMBULATION** or "getting around"
   - Including learning to use wheelchairs, braces, crutches, canes, etc.
   - how to walk, climb stairs; how to use public transportation, driver re-training.

3. **HAND ACTIVITIES**
   - Including communication by buzzer, signal, telephone, typing, writing; opening and closing doors and drawers; using keys; operating faucets, etc.

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**5000--** in many illnesses and injuries, **PHYSICAL THERAPY can help**—

- shorten stay in hospital
- relieve pain
- improve the long-range outlook for activity

**PT helps people of all ages**

**HANDICAPPED CHILDREN**
- learn to lead full, useful, happy lives despite cerebral palsy, muscular dystrophy and other ailments that impair motion.

**YOUNG ADULTS**
- the accident-prone group, are helped back to the fullest possible mobility and productivity — Faster!!

**MIDDLE-AGED**
- can recover from strokes, heart attacks, etc. to enjoy many active years.

**OLD-AGED**
- can be freed from some of the pain of chronic ailments such as arthritis and rheumatism.

As drugs and surgery make it possible for people to live longer, physical therapy becomes more important in making lives **MORE ACTIVE and MORE ENJOYABLE**.