

# ABSTRACT

Physical therapy (PT) is a branch of medicine which involves evaluation, assessment, and treatment of individuals with limitations in functional mobility, without medications. PT acts synergistically with medications and is administered by qualified, certified Physical Therapists (PT's). PT can relieve pain, improve the mobility, help in the recovery from a sports injury, and help people recover from conditions such as DVT, PE, MI, and stroke. In conclusion, our research indicates that by reducing the dose or eliminating the drugs used to treat pain, the incidence of side effects by medications could be reduced significantly. In the future, we plan to research in other techniques for the management of VTE.

#### INTRODUCTION

- Objectives: To research different aspects of physical therapy and its role in managing thrombotic conditions.
- Physicians (Hippocrates, Galen) were the first practitioners of physical therapy (PT), advocating massage, manual therapy techniques and hydrotherapy to treat people in 460 BC.
- PT was found when American soldiers returned from war. PT was introduced in WWI to help soldiers with burns.
- During an outbreak of Polio, the popularity of PT boosted

#### WHAT IS PT?

- Evaluation, assessment, and treatment of individuals with limitations in functional mobility, without medications.
- PT acts synergistically with medications.
- Prescribed by a physician and administered by a trained, qualified, certified Physical Therapists (PT's).
- Can help all ages, genders, races and people of every national origin.

# PHYSICAL THERAPY AND VTE

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# WHAT DOES PT INVOLVE?

- Exercises or stretches guided by the therapist.
- Massage, heat, or cold therapy, warm water therapy, or ultrasound to ease muscle pain or spasms.
- Rehab to help patient learn to use an artificial limb.
- Practice with gadgets that help the patient move

### THINGS TO BE EXPECTED DURING THE FIRST SESSION

- A detailed assessment of the condition.
- Measurement of their range of movement (ROM).
- Creation of a personal rehabilitation program that is designed to meet personal goals.
- The main focus is to strengthen the weakened muscles.

#### **BENEFITS FROM PT**

- Relief of pain
- Improve movement or ability
- Prevent or recover from a sports injury
- Prevent disability or surgery
- Work on balance to prevent a slip or fall

#### **TESTS THAT A PT'S WILL ADMINISTER**

- How well can the patient move around, reach, bend, or grasp.
- How well can the patient walk or climb steps.
- The heartbeat or rhythm while active.
- Posture or balance

#### WHAT THROMBOTIC CONDITIONS **COULD BE TREATED BY THE PT?**

Physical therapists could manage DVT, MI, PE and Stroke

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#### DVT

When the blood clots in the vessels of the



Part of the clot may break off and trave up the vein Blood clot

stuck to inside lining of the vein

#### **MYOCARDIAL INFARCTION: CARDIAC REHAB**

In myocardial Infarction (MI, heart attack), a blood clot appears in one or more arteries the heart.



Area of temporaril blocked blood flow

in the middle

Medically supervised program designed to improve cardiovascular health following an MI, heart failure, angioplasty or heart surgery.

Three important parts:

Exercise and training: Gets the heart pumping and the entire cardiovascular system working. Patient learns how to get body moving in ways that promote heart health.

Education: Quit smoking, make heart-healthy nutrition choices.

Counseling: Stress hurts the heart. This part helps the patient identify and tackle everyday sources of stress.

#### STROKE

When a blood clot occurs in one or more arteries of the brain. In the first weeks

and months of recovery, physical

Blockage in the interna therapists work with stroke survivors to keep these muscles toned and stimulated - even before they regain voluntary movement. When function returns, physical therapy allows

patients to relearn everyday skills and retrain their healthy brain cells to control the affected body parts for stroke recovery including occupational therapy, rehabilitation nursing and speech therapy.

Post-stroke rehabilitation is a major part of this recovery process, begins as early as 24 hours after stroke.

Stroke physical therapists are able to stimulate affected muscles and nerves to maintain circulation and prevent stiffness, guide patients through the stages of stroke recovery to relearn basic muscle movements.

SaeboFlex helps patients suffering from neurological impairments, such as stroke, the ability to incorporate their arm and hand functionally in therapy and at home.

# **SUMMARY AND CONCLUSIONS**

their dose.

We plan to research in other techniques for the management of VTE.





#### STROKE



Our research indicates that physical therapy plays a major role in the lives of patients who have suffered any of the listed conditions.

PT is a powerful and effective way to treat injuries usually without the help of medications.

PT may reduce the need of medications, or reduce

PT is cost effective and affordable.

By reducing the dose or eliminating the drugs used to treat pain, the incidence of side effects by medications could be reduced significantly.

#### **FUTURE DIRECTIONS**

#### REFERENCES

1. Dufresne, Kristen: Early Ambulation versus Bed Rest for Patients with PE or DVT: Physical Therapy, University of Toronto

■ 2. Hillegass, Ellen; Puthoff, Michael; Frese, Ethel M, et al: Role of Physical Therapists in the Management of Individuals at Risk for or **Diagnosed With Venous Thromboembolism**