# PHYSICAL THERAPY WHAT IS IT?





By

Rony Masri, PT, DPT, OCS, ATC

# My Background



1995-UVA grad—Sports Medicine/ Athletic Training 1998-ODU grad—Master's in Physical Therapy

2008- MCV-VCU-Doctorate in Physical Therapy

2008- Board Certified Orthopedic Specialist-This signifies competence in specialized knowledge and advanced clinical proficiency in the specialty area of orthopedics promoting the highest level of enhanced diagnostic skills and care for individuals seeking physical therapy

April 2010 -- I founded Total Motion Physical Therapy—where it is our vision is to best first choice for physical therapy services in the NRV by providing you our patient with service that exceeds expectations and treatment sessions by the same professional each visit

# PHYSICAL THERAPY



is the science of healing and the art of caring. It is understanding the relationship of anatomy and biomechanics of the whole body and relating that to functional activities like walking, running, lifting, bending, and sitting.



### WHAT IS A PHYSICAL THERAPIST



### **Neuromusculoskeletal Specialist**

Experts in the examination, treatment, & prevention of problems related to nerves, muscles, and joints

Physical Therapist treat, diagnose & prevent movement dysfunction through medical exercise therapy

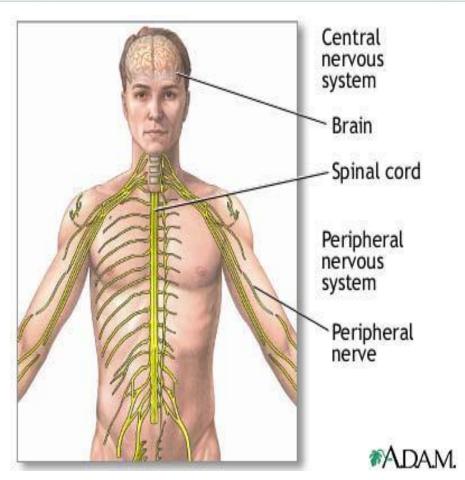


# THE NERVOUS SYSTEM



The CNS and the peripheral nerves

Stroke, Multiple Sclerosis, Alzheimer's, Parkinson's, Cerebral Palsy

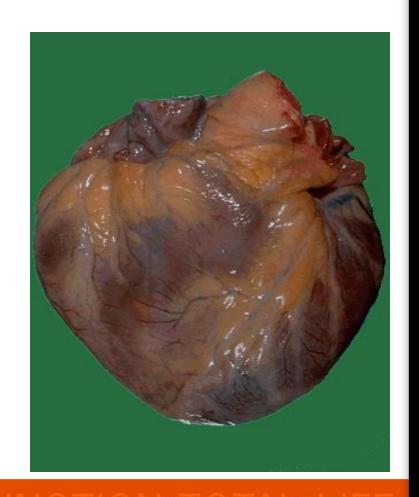


# THE CARDIOVASCULAR SYSTEM TOTAL



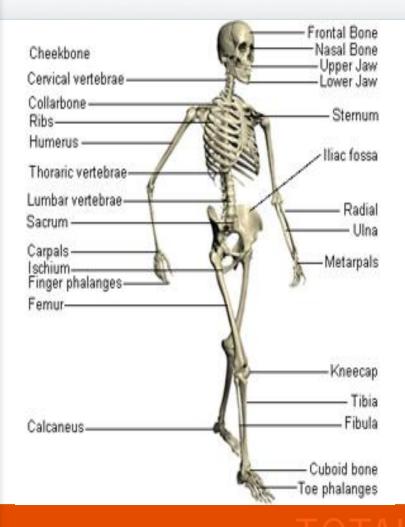
Heart, Lungs, Veins and Arteries

Heart Attacks, HBP, Emphysema, COPD DVT's



# THE SKELETAL SYSTEM





Axial Skeletal-skull, spine, & rib cage

**Appendicular Skeletonlong and short bones** 

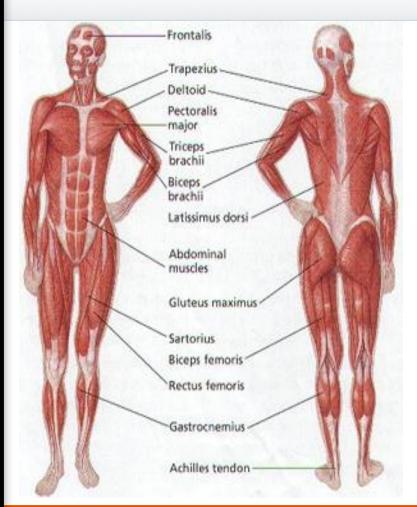
Form joints connected by joint capsule and ligaments

Fractures, Osteoporosis, Dislocations, Arthritis,

Subluxations, Ligament Tears (ACL)

# THE MUSCULAR SYSTEM





Muscles- Quadriceps, Gluteals, Hamstring, Biceps, Rotator Cuff

Strains, Tears, & Atrophy

# WHAT DO PT'S DO?





Evaluate biomechanical dysfunctions through our vast knowledge of human anatomy and physiology and kinesiology

Construct and Implement a treatment plan that consist of therapeutic exercises, gait training, modalities, posture training and back education to get patients back to doing what they want to do independently and w/o dysfunction & pain

# WHAT DO PT'S DO?-WE EDUCATE







#### WHAT DO PT'S DO?-IMPROVE MOTION & MOBILITY





A physical therapist is a trusted health care professional who will work closely with you to evaluate your condition and develop an effective, personalized plan of care.

A physical therapist can help you achieve long-term results for many conditions that limit your ability to move

#### WHAT DO PT'S DO?-REDUCE THE RISK OF INJURY







While playing a round of golf or picking up around the house may seem harmless, but these everyday activities can result in injury due to abnormal movement, stress on joints and strain on muscles.

Because physical therapists are experts in knowing how the body works, they are able to design personalized treatment plans to reduce the risk of injury whether in everyday activities or sports

#### WHAT DO PT'S DO?-IMPROVE BALANCE AND PREVENT FALLS

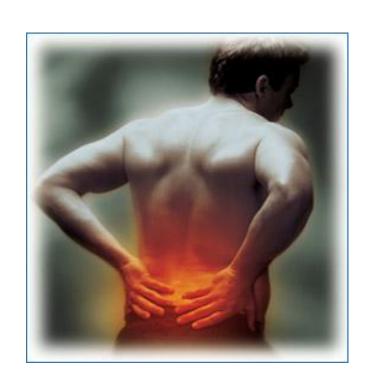




Falls among the elderly are prevalent, dangerous, and can diminish their ability to lead an active and independent life. **According to the National Aging** Council, about one in three seniors above age 65, and nearly one in two seniors over age 80, will fall at least once this year, many times with disastrous consequences. A physical therapist can help you prevent falls by designing an individualized program of exercises and activities with an emphasis on strength, flexibility, and proper gait.

### WHAT DO PT'S DO?-HELP YOU ELMINATE PAIN TOTAL

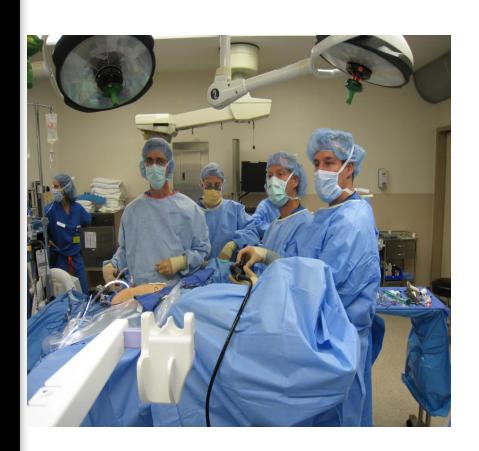




Physical therapists can help reduce and manage pain, especially low back pain, which affects up to **80 percent of Americans** during their lifetime. Physical therapy that mobilizes the spine along with specific exercises can help alleviate the pain and can have long-lasting effects

### WHAT DO PT'S DO?-HELP AVOID SURGERY TOTAL





Physical therapists can help you avoid painful, invasive and expensive surgery, in many instances.

Research shows that physical therapy, combined with comprehensive medical management, is just as effective as surgery when it comes to relieving the pain and stiffness of moderate to severe osteoarthritis of the knee.

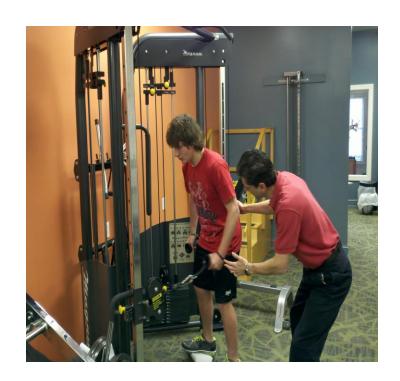
Pursuing an exercise program designed by a physical therapist can be one of the best protections from injury and surgery.

#### HOW DO I KNOW PT IS RIGHT FOR ME?



No matter what area of the body ails you – neck, shoulder, back, knee – we as physical therapists have an established history of helping individuals improve their quality of life.

A physical therapist can help you move freely again without pain and discomfort and feeling renewed and ready to move on. Most importantly, we can even help you prevent an injury altogether



#### HOW DO I KNOW PT IS RIGHT FOR ME?



**Arthritis Back Pain Fitness Knee Pain Obesity Osteoporosis Overuse Injuries Shoulder Pain Stroke** Sprains, strains, and **fractures** And much more



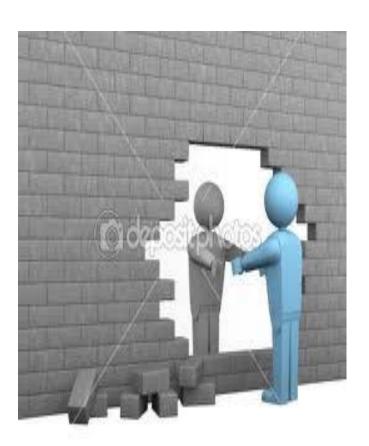






#### DO I NEED A REFERAL? NO!!!!!





- Direct access helps to remove unnecessary barriers to healthcare and gives you a choice in accessing physical therapy services quicker to assist in earlier intervention for speedier recovery.
- At *Total Motion Physical Therapy*, our therapists are *Direct Access Certified* by the Virginia Board of Medicine.
- We also believe that regular communication with your primary care physician is important as well. As neuromusculoskeletal specialists, physical therapists are trained to identify signs and symptoms of conditions that are beyond our scope of practice and if this occurs we will communicate with you and your physician to ensure that you are referred to the appropriate specialist.
- In fact, as part of our routine practice, we provide evaluations and progress reports to your physician in order to be informed of your progress while you are a participant in a *Total Motion Physical Therapy* treatment program

# WHY CHOOSE PHYSICAL THERAPY?





By

Brian Dinger, PT, DPT

# My Background



2007- University of Kentucky Grad—Bachelors of Health Science with focus in Kinesiology (The study of movement) 2010- University of Kentucky Doctorate in Physical Therapy October 2010 – Joined Ron at Total Motion as a staff Doctor of Physical Therapy, as well as, continuing my education while doing a clinical residency program for orthopedics in order to obtain my Orthopedic Clinical Specialist Board Certification



Experts in the examination, treatment, & prevention of problems related to nerves, muscles, and joints

**Direct Access** 

**Save Time** 

**Save Money** 

**Better Outcomes** 

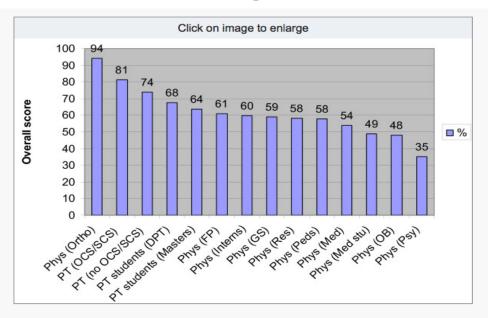
**Improved Function** 

**Improved Quality of Life** 





## The Data and Research Speak For Themselves



#### Figure 1

Overall scores on the musculoskeletal knowledge examination among physical therapist students, licensed physical therapists, and previous data using the same examination among physicians. All physician-related data was derived from Matzkin et al,[12] except data for the subgroup of physician interns, which was derived from Freedman and Bernstein[7]. PT = physical therapist, Phys = physician, OCS = Orthopaedic Clinical Specialist, SCS = Sports Clinical Specialist, DPT = doctoral physical therapy program, MPT = master's physical therapy program, Ortho = orthopaedics, Other = anesthesia, emergency medicine. ophthalmology, radiology, and transitional, FP = family practice, GS = general surgery, Res = Resident, Peds = Pediatrics, Med = internal medicine, Med stu = medical student, OB = obstetrics-gynecology, and Psy = psychiatry



Childs JD, Whitman JM, Sizer PS, et al. A description of physical therapists' knowledge in managing musculoskeletal conditions. BMC Musculoskelet Disord. 2005;6:32.

 Experienced physical therapists had higher levels of knowledge in managing musculoskeletal conditions than medical students, physician interns and residents, and all physician specialists except for orthopaedists



#### **HOW DO WE MEASURE UP?**

Freedman and Bernstein 2002 (78% failed - to demonstrate medical school prep is inadequate)

Freedman et al. JBJS 2005; Ortho Test given to Med students: 82% failed

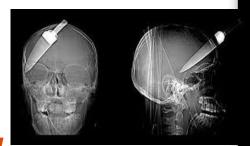
Matzkin et al, 2005 --- 79% failed basic musculoskeletal exam if non-orthopedic residency trained



#### **SAVES TIME AND MONEY**

# Moore and colleagues JOSPT 2005 -

- More than 50,000 Direct Access and no adverse events or injury.
- When Imaging studies were compared to the clinical exam of PTs or Ortho surgeons we were correct about 80% of the time.
- Both better than non-ortho physicians





# **PT or Drugs?**

More than 100,000 people hospitalized every year from pain killer Tylenol, Advil, Aleve. More than 7,600 deaths NSAIDS Tamblyn et al. 1997



1/1.5 million for sudden death with exercise Albert, et al. 2000



#### **PT or Drugs?**

A February 2008 report published in the Journal of the American Medical Association reports that from 1997 to 2005, pharmaceutical expenditures for the management of low back pain increased by 171% while the **rate Of good outcomes fell**. "All the imaging we do, all the drug treatments, all the injections, all the operations have some benefit for some patients," said Richard A. Deyo, a physician at Oregon Health & Science University in Portland and a coauthor of the report. "But I think in each of those situations we've begun using those tests or treatments more widely than science would really support."



# **PT or Drugs?**

**The American Pain Society** 

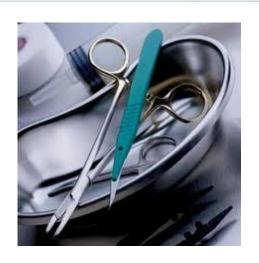
"The key in chronic low back pain is avoiding too much medicine. There is no magic bullet, but a combination of hands-on care and an active exercise offer the best solution." - Practice guidelines for LBP 2008



So what about surgery?

Average cost of PT \$500 versus \$50,000 for surgery

6,000 people die a year from Spinal surgery ---- up to 50% of spinal surgery patients have partial or no relief of symptoms





# PT or Surgery?

**American Pain Society 2008** 

#### **Invasive interventions:**

 spinal joint injections, radiofrequency denervation, intradiscal electrothermal therapy = no evidence of effectiveness.

# **Surgical procedures for CLBP:**

- small improvement in pain and disability
- considerable risk.



## PT or Surgery?

Dr. Timothy Flynn from Regis University, Denver, and President of the American Academy of Orthopedic Manual Physical Therapists (AAOMPT), "one in five people who have their spines fused in surgery, must suffer through additional surgery because it failed the first time. That's an alarming rate. In the vast majority of cases, patients would have benefited from physical therapy first."



## PT or Surgery?

NPR November 21, 2006 for surgery requiring removal of herniated disc, PT and pain killers were just as successful as surgery





Deyo and colleagues reported in the January 2009 issue of the *Journal of American Board of Family Practice* the following staggering statistics:

 $\bullet$   $\bullet$   $\bullet$ 

A 629% increase in Medicare expenditures for epidural steroid injections; A 423% increase in expenditures for opioids for back pain; A 307% increase in the number of lumbar magnetic resonance images among Medicare beneficiaries; A 220% increase in spinal fusion surgery rates.

'Prescribing yet more imaging, opioids, injections, and operations is not likely to improve outcomes for patients with chronic back pain.'



#### **Bottom Line –**

"In general, non-invasive therapies supported by evidence showing benefits should be tried before considering interventional therapies or surgery," said Dr. Roger Chou." Physical therapy, including spinal manipulation and exercise, was noted as a centerpiece component of effective low back pain care"



#### **Bottom Line –**

Association of Ethical Spine Surgeons – "The number one alternative to lumbar surgery, according to the surgeons themselves, is to first visit a physical therapist."



