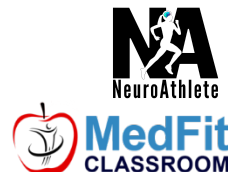




mfef
MedFit Education Foundation
Committed to the Health of Our Nation

Dr. Grove Higgins & Master Trainer Pat Marques

Joint Replacement Fitness Specialist



Joint Replacement Fitness Specialist

- **Dr. Grove Higgins**

- Chiropractor & Soft Tissue Practitioner
- Speaker and Educator
- Functional Anatomy Instructor
- NSCA CSCS
- Research:
 - Biomechanics Gait and Foot Development
 - Anatomy of Lower Leg Modeling
 - Exercise & Hormonal Response
- Worked in medicine since 1993



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- **Patrick Marques**

- LTC (R) U.S. Army
- BS Exercise Science
- Z-Health Master Trainer & Instructor
- NSCA CPT
- Speaker and Educator
- Corrective Exercise Therapist
- Research
 - Exercise & Hormonal Response, Sleep



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- **Course Objectives:**

- Understand why joints degenerate and may need replacement
- Understand common joint replacement technology
- Understand joint replacement rehabilitation prior to post-medical training
- Understand the role of the fitness specialist in post-medical training
- Learn basic neurology for movement, posture, balance, and pain
- Learn baseline assessments for gait & motor control
- Learn how to use sensory stimulus to promote better movement
- Learn specific exercises for joint replacement
- Understand programming for joint replacement
- Understand continuing education opportunities

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- **Module 1** - General information regarding joint replacement
 - How joints work
 - Why joints need to be replaced
 - The joint replacement process
 - Physical therapy after joint replacement
 - The neurology of joint replacement motor dysfunction & pain
 - Joint replacement exercise programming overview

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- **Module 2 – Knee**
 - Anatomy & physiology
 - Pathophysiology
 - Knee replacement surgery
 - Knee replacement rehabilitation
 - Assessing
 - Training
 - Programming
- **Module 3 – Hip**
 - Anatomy & physiology
 - Pathophysiology
 - Hip replacement surgery
 - Hip replacement rehabilitation
 - Assessing
 - Training
 - Programming
- **Module 4 – Shoulder**
 - Anatomy & physiology
 - Pathophysiology
 - Shoulder replacement surgery
 - Shoulder replacement rehab
 - Assessing
 - Training
 - Programming

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- **Module 5 – Business Development**
 - Marketing strategy
 - Communicating with medical teams

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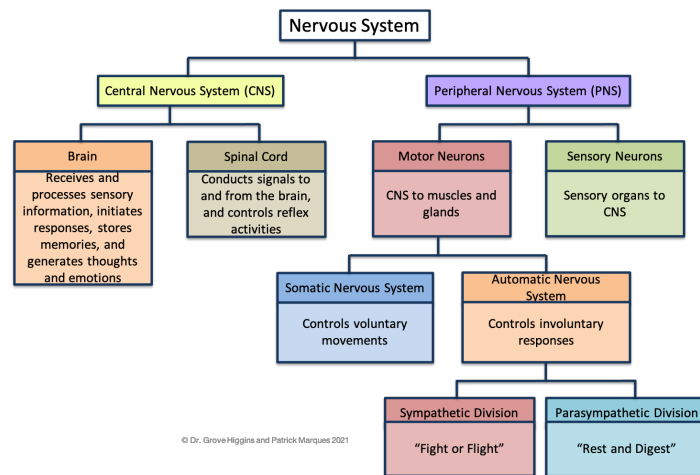
- **Module 6 (Epilogue)** – Ongoing personal education
 - Recommended reading
 - Recommended courses
- **Module 7 (Final Exam)**
 - Quizzes after each Lesson will help you prepare
 - Final Exam

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- **Why use a “neuro-centric” approach to training?**

- The fastest system in the body
- The nervous system is very orderly
- Neuroanatomy has rules

- **The “Big Three” Concepts**



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Big Concept #1:

The nervous system is the *governing* system of the body

- It runs everything
- Pain, performance, rehab/therapy, fitness, etc. *ALL* depend on the nervous system

KEY POINT: Biomechanics *obey* and *respond* to the nervous system, not vice versa



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Big Concept #2:

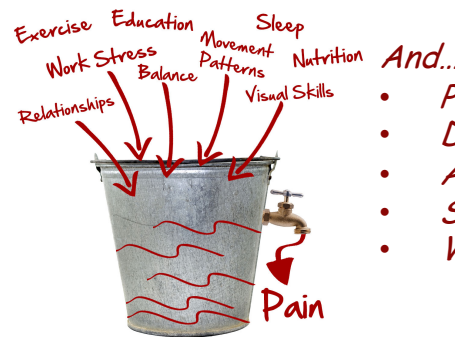
The brain's #1 job is survival

- So... any threat to the brain puts the brakes on your system
- Threat is not just physical injuries

KEY POINT: Performance is a gift your brain gives you when it feels good about everything



<https://www.donsmaps.com/images6/humansabretooth.jpg>



- And...*
- *Poor movement*
 - *Depression*
 - *Anxiety*
 - *Stiffness*
 - *Weakness, etc....*

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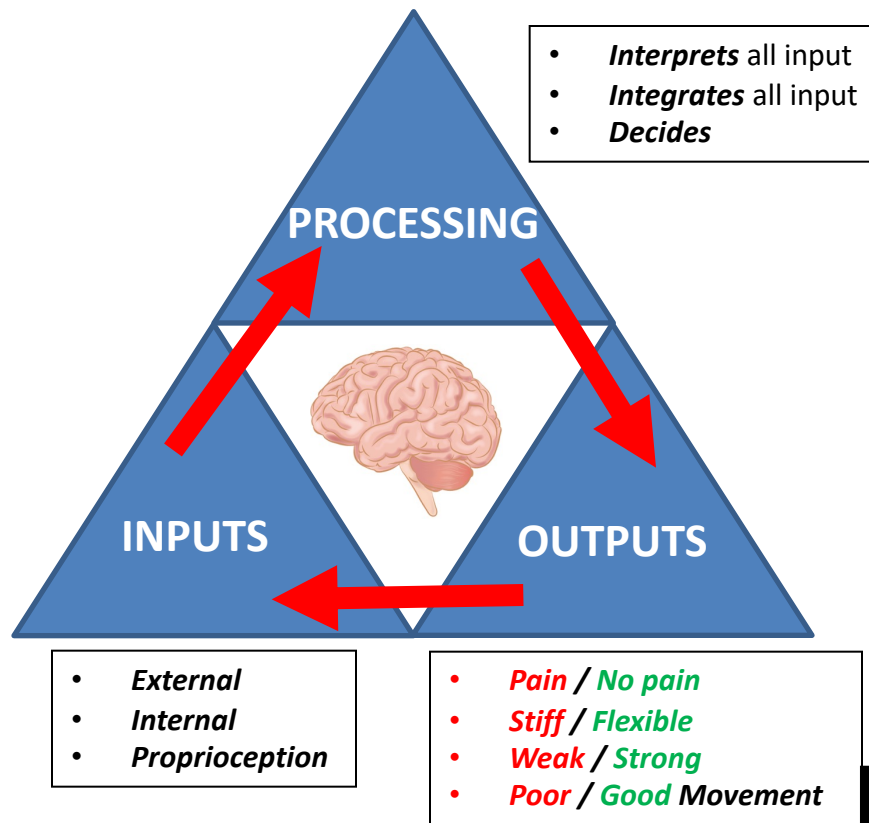
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Big Concept #3:

The *input* to the brain determines the *output*

KEY POINT: To get a better output, you must:

- Change the input
- Improve the processing



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The 3 Big Concepts:

1. The nervous system is the governing system of the body
2. The brain's #1 job is survival
3. The input to the brain determines the output

Biomechanics are still important!

