

**Nick Tumminello's**

# **ASSESSMENT & EXERCISE PRESCRIPTION: A SIMPLE (AND SENSIBLE) APPROACH**

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## **FILLING A NEED!**

- Many Therapists, Coaches and Trainers are caught up with... using various formal orthopedic assessment procedures to identify an individual's current limitations (i.e. what they *can't* do) and potential dysfunctions for the purpose of working to fix these issues using low level "corrective" exercise therapy-based protocols.

- We all **MUST** be most concerned with... Prescribing exercises based on what an individual currently *can* do while working *around* potential dysfunctions to improve fitness and health using challenging, general exercise modalities, and principles (i.e. Progressive overload, SAID, etc.).

*"Nothing is guaranteed in Physical therapy. But, a good strength training program, designed around one's current successful movement capabilities, can have drastic physical (and mental) improvements in 6-weeks."*

*"These YMCA statistics describe what happens to most of us. The average American gains one pound per year after the age of 25, and loses ½ pound of lean body mass per year after the age of 25. Consequently, the average 55 year old has gained 25–30 pounds and lost 10–12 pounds of those tissues required to counteract the weight gain. The increased weight gain overloads the skeleton, causing injury and pain (arthritis). And, the average female loses 1/3 of her skeleton in a lifetime. The key to living life to its fullest is to strengthen your body with the appropriate exercise, increase muscle mass and decrease body fat. The home run: Get Lean and Stay Lean...Learn to Exercise and Become a Student of Nutrition."*

Jim Porterfield PT, MA, ATC

## **WHAT YOU MEASURE BECOMES WHAT YOU DO**

**Many fitness and conditioning professionals end up making the training process more about the assessment and not nearly enough actual fitness training gets done (i.e. exercise in an intense enough manner to create a training effect) to successfully achieve the physique or performance goals of their client(s).**

- **The currently stylish “It Sounds Pretty Good” (corrective) Training approach** - Assessment Procedures and Specialized (Corrective) Exercise approaches come and go, are often highly debated, and the scientific evidence for their efficacy is always weak and circumstantial.

**THE SUCCESS RATE OF PTs?**

- **Jeans & T-Shirt Training** - Regular exercise and basic nutrition guidelines never goes out of style, have long been agreed upon, have overwhelming evidence of efficacy (i.e. have a very HIGH SUCCESS RATE!)

**We focus on concepts and techniques we know work, not on the “it sounds pretty good,” “I hope it works” stuff.**

## **OBJECTIVE**

**Discover the Performance U principles used to evaluate each individual to find an exercise starting point and decide on a good training direction to take, keeping safety in mind.**

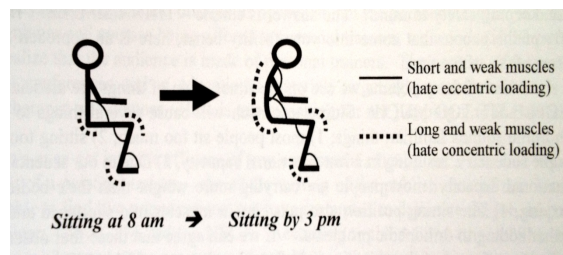
## THE PERFORMANCE U TRAINING APPROACH SUMMARIZED:

- Get off your ass!
- Fight the sitting position!
  - Add “*Stress without distress.*” Hans Selye
- Eat better!

**It's so simple – It's too simple to be sexy!**

**KEEP IT SIMPLE STUPID.**

## TRAINING DIRECTION: FIGHT THE SITTING POSITION!



**Sitting too much (usually) causes 4 general things to happen:**

1. People become more sedentary
2. A lack of activity results in lower functional capacity.
3. Due to the above, many people are carrying around more weight (i.e. fat) than their bodies feel comfortable carrying.
4. The sitting position causes physical adaptations (SAID): certain muscles at lengthened positions and other at shortened positions for extended periods of time resulting in potential length/tension changes.

## IF THE CAUSES ARE SO PREDICTABLE, SO IS THE CURE!

### Most clients will be:

- Looking for fat loss (from being overweight)
- Looking to get into better shape (from a lack of regular activity)
- Looking to feel and move better (from sitting to much)



### The Fix:

- Start cleaning up the diet and reinstating regular exercise and multi-planar movements into their lives.
- *“Provide a comprehensive exercise (and nutrition) program aimed at dropping fat, enhancing motor abilities, fighting the sitting position and increasing functional capacity.”* Jc Santana

## SPECIAL (CORRECTIVE) EXERCISE DOESN'T “HAVE” TO COME BEFORE GENERAL EXERCISE

*“The current fear many trainers have about using strength training without first utilizing specialized, corrective exercises is unfounded...”*

*... There’s NO real scientific (or practical) basis for claiming that you have to do motor control training (corrective exercise) before you can begin strength training. Instead, they’re “parallel pathways”, which can be used together in conjunction!”*

Mark Comerford B.Phty. MCSP

## OUR 4 RULES OF TRAINING FOR PROGRESSION & SAFETY:

**1. NO PAIN** – An exercise can be performed pain free (or doesn't increase current pain).

**2. GOOD CONTROL** – An exercise can be performed in the way you ask.

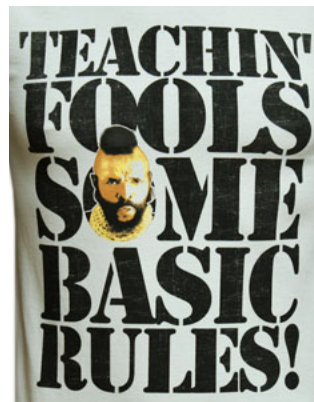
**We believe in “form”, but not one form because “function” comes in all shapes, sizes and styles!**

**We tell them - We (then) show them - We (then) ask them to show us. If those steps are successful, we then add load to the movement and ask them to show us again..**

**3. FITS TO THE CLIENT** – *An exercise doesn't go against the client's current physiology (structure, injury profile, etc.)*

**Note: #1-3 is how we *don't* add fitness to dysfunction!**

**4. GOOD PROGRESSION** – An exercise (or program) provides constant improvement. *The Ultimate evaluation criteria!*



## WE ADDRESS THE 5 PILLARS OF HUMAN MOVEMENT (FUNCTION)

- 1. Locomotion**
- 2. Rotation**
- 3. Pushing**
- 4. Pulling**
- 5. Raising & Lowering your COG** (squatting, lunging, stepping, etc.)

- Each of these 5 categories of movement happen in all field, court and combat sports, and in life!
- We've found that by helping clients get better at performing these 5 foundational movement patterns; these 5 pattern help them function better because they transfer into any movement oriented goal!

## INDIVIDUALIZATION: OUR 3 EXERCISE MODIFICATION AND REGRESSION STRATEGIES



- Adjust the ROM
- Change the stance, arm angle or hand position
- Don't fit the client to any exercises, fit the exercises to the client.

## HOW WE ADDRESS L/R ASYMMETRIES:

- We're all asymmetrical by nature and by design.
- The predominant amount of research (currently) says a lack of *strength* symmetry (not movement symmetry) can potentially elevate injury risk for athletes.

In other words, each leg may move a bit differently, as long as each side has the strength and stability to control the movement you can create on either side.

### Our Simple Solution:

- Emphasize unilateral exercises! DUH!
- We perform more sets on the weaker side.
- We limit the amount of reps done on the stronger side to *only* what they can do (with the same load) on the weaker side.

## HOW WE ADDRESS PAIN:



- **If it hurts, we don't do it! We find exercises that don't hurt.** (Joint Friendly Strength Training 2-DVD set)
- If someone is already in pain, we'll make sure our training doesn't increase it.
- *"World records are broken by athletes who are in pain"*
- Pain changes timing, not strength!
- Science has shown the timing delay is caused by the pain, not the cause of it!
- Dr. Carl DeRosa's AM/PM Pain Pattern

## OUR APPROACH TO COMPENSATIONS:

The way we see it, there are basically 3 types of compensations and two of them we don't mess with:

**Adaptive** – Where your body has adapted to the activities (or a lack thereof) it experiences most often.

**Protective** – Also called "Protective guarding". It's a compensation that transfers force away from an injured area.

**Structural** – Where your anatomical structure dictates your functional movement ability. Arthritic or cartilage loss can change the way you move.

- We can't do anything about the **structural issues** and we don't want to do anything about the **protective guarding issues**. (We might go against their current physiology or expose them to what their body is trying to *protect* them from in the first place.)

- We've found the **adaptive issues** seem to go away from good training because the body re-adapts to the new activity (training) stimulus we're giving it.

## **A FINAL WORD ON SCOPE OF PRACTICE: FITNESS VS. THERAPY**

As personal trainers, we believe that whatever doesn't get "corrected" from using our training strategies, which you just learned about, it more than likely isn't for us to try to correct anyway. So, we simply refer out to the proper medical professional and work-around the issue(s) during our sessions.

### **THE ROLE OF A FITNESS PROFESSIONAL:**

**According to the ACSM**, "*Certified Personal Trainers are qualified to plan and implement exercise programs for healthy individuals or those who have medical clearance to exercise.*" – "*The ACSM Certified Personal Trainer (CPT) works with apparently healthy individuals and those with health challenges who are able to exercise independently to enhance quality of life, improve health-related physical fitness, performance, manage health risk, and promote lasting health behavior change.*"

**Likewise, according to the NSCA**, "*Personal trainers are health/fitness professionals who, using an individualized approach, assess, motivate, educate and train clients regarding their health and fitness needs. They design safe and effective exercise programs, provide the guidance to help clients achieve their personal health/fitness goals and respond appropriately in emergency situations. Recognizing their own area of expertise, personal trainers refer clients to other health care professionals when appropriate.*

## **THE ROLE OF THE PT...**

According to the **Maine Physical Therapy Practice Act**, the Scope of Practice of a physical Therapist is as follows...

*"The practice of physical therapy includes the evaluation, treatment and instruction of human beings to detect, assess, prevent, correct, alleviate and limit physical disability, bodily malfunction and pain from injury, disease and any other bodily condition; the administration, interpretation and evaluation of tests and measurements of bodily functions and structures for the purpose of treatment planning; the planning, administration, evaluation and modification of treatment and instruction; and the use of physical agents and procedures, activities and devices for preventive and therapeutic purposes; and the provision of consultative, educational and other advisory services for the purpose of reducing the incidence and severity of physical disability, bodily malfunction and pain."*

Additionally, the **Florida State Physical Therapy Practice Act** describes what a Physical therapy assessment entails...

*"Physical therapy assessment means observational, verbal, or manual determinations of the function of the musculoskeletal or neuromuscular system relative to physical therapy, including, but not limited to, range of motion of a joint, motor power, postural attitudes, biomechanical function, locomotion, or functional abilities, for the purpose of making recommendations for treatment."*



## CONCLUSION

- We feel it's very obvious where the assessments of muscle imbalances, compensations, movement impairments and other orthopedic issues belong!!!
- In our book, Fitness Professionals are supposed to be the leading (Exercise) experts at helping EVERYONE find exercises and activities they can safely do based on their needs, goals and current abilities.
- If it doesn't get taken care of by patting them on the back, kicking them in the ass, and following the strategies described, we don't feel it's for the fitness pro to try to "fix."
- Using the strategies described, we've been able to take care of 90% all of all the common issue that all of us (Trainers, Coaches and Therapists) worry about.

# THANK YOU!

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