



OUR **MISSION** IS TO TEACH, EMPOWER, AND  
TRANSFORM OUR CLIENTS BY BECOMING THE  
TRUSTED VOICE FOR THEIR PHYSICAL THERAPY  
AND WELLNESS NEEDS.



**PRESENTS**

**THE MOVE BETTER // FEEL BETTER // LIVE BETTER SERIES**



**SESSION  
ONE:**

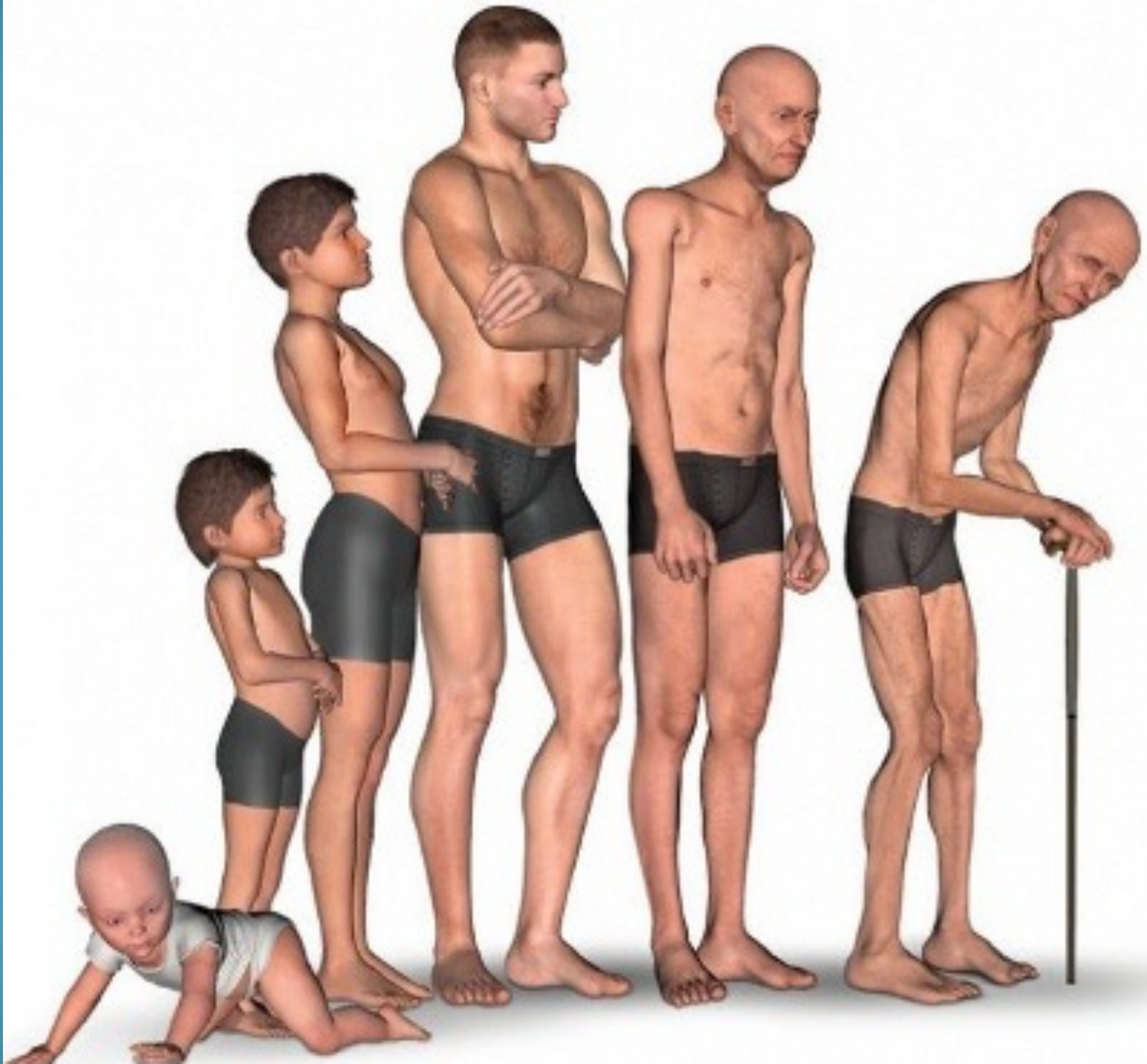
***GET STRONGER,  
LIVE LONGER***

[ewmotiontherapy.com](http://ewmotiontherapy.com)



# The Effects of Aging

- Muscle loss
- Bone loss
- Low energy
- Slow metabolism
- Changes in physical appearance /postural changes
- Cognitive decline
- Loss of balance and coordination
- Increase risk of all-cause mortality





# The Benefits of Strength Training

- Increased muscle mass
- Increased bone density
- Increase energy and metabolism
- Retain muscle tone and skin elasticity
- Increased cognitive function
- Improvements in mood and depression
- Decrease fall risk and increase fall resiliency
- Decreased risk of all-cause mortality





# European Journal of Preventive Cardiology

The association of resistance training with mortality: A systematic review  
and meta-analysis, May 19, 2019

- 21% decrease in all-cause mortality associated with strength training
  - 40% decrease when combined with aerobic exercise



# JAMA Psychiatry

Association of efficacy of resistance exercise training with depressive symptoms: Meta-analysis and Meta-regression Analysis of Randomized Clinical Trials, 2018.

- "RET significantly reduced depressive symptoms among adults regardless of health status, total prescribed volume of RET, or significant improvements in strength"



# Journal of the American College of Cardiology

Hand grip strength significantly predicts cardiovascular event risk in patients with type 2 diabetes, April 2016.

- "Hand grip strength in patients with T2DM is inversely associated with vascular events independently both from well-established cardiovascular risk factor and from the angiographically determined baseline CAD state."



# Journal of Strength and Conditioning Research

"Resistance training improves sleep quality in subjects with moderate Parkinson's disease."

- Twenty participants with moderate Parkinson's disease completed a 12-week resistance training program consisting of leg press, leg curl, leg extension, chest press, latissimus dorsi pull-down, and seated row exercises.
- The resistance training program led to significant improvements in sleep quality, as measured by the Pittsburgh Sleep Quality Index (PSQI), with reductions in sleep latency, improvements in sleep efficiency, and overall better sleep quality.





# How Strong are You?

## Norm Handgrip Strength Values

Age 20-29

Men: 101-108lbs Women: 66-75lbs

Age 30-39

Men: 99-106lbs Women: 64-73lbs

Age 40-49

Men: 97-103lbs Women: 62-70lbs

Age 50-59

Men: 90-99lbs Women: 59-66lbs

Age 60-69

Men: 66-88lbs Women: 44-66lbs

Age 70-79

Men: 55-77lbs Women: 33-55lbs

Age 80-89

Men: 44-66lbs Women: 22-44lbs

Age 90+

No Norm Values Researched



# How Strong are You?

30 Second Chair Stand Norms:

Age 60-69

10-12 repetitions

Age 70-79

8-10 repetitions

Age 80-89

6-8 repetitions

\*No normative data for <60 years old\*



**The evidence is  
overwhelmingly in favor of  
regular resistance training.**

However, there is also an overwhelming number of options and opinions of how you should do it.

How do you know what to do?



# Principles of Exercise Programming

- Sustainability
- Injury Reduction
- Improved Performance

# Strength Training 101



- **Upper Body**
  - Push / Pull
  - Vertical / Horizontal
- **Lower Body**
  - Hip Dominant / Knee Dominant
  - Bilateral / Unilateral

# Strength Training 101



- Core
  - Anterior
  - Lateral
  - Posterior
  - Rotational



# Things Commonly Overlooked

- **Posture and Alignment**
  - **Core Stability**

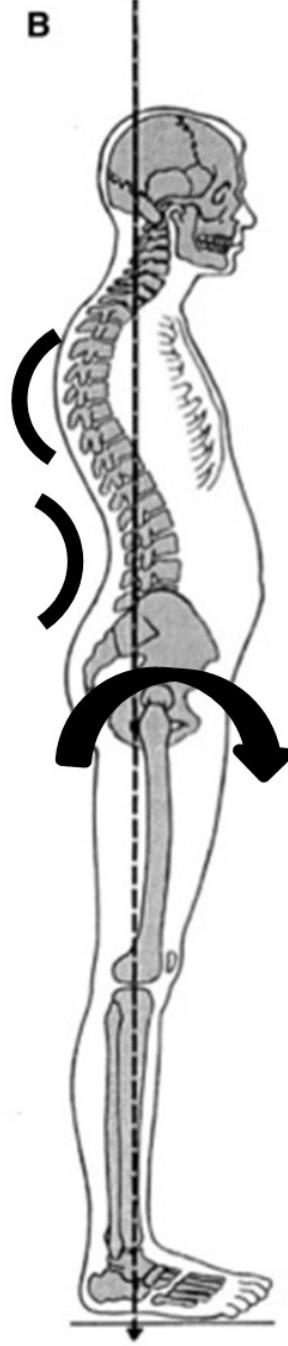


# Posture and Alignment

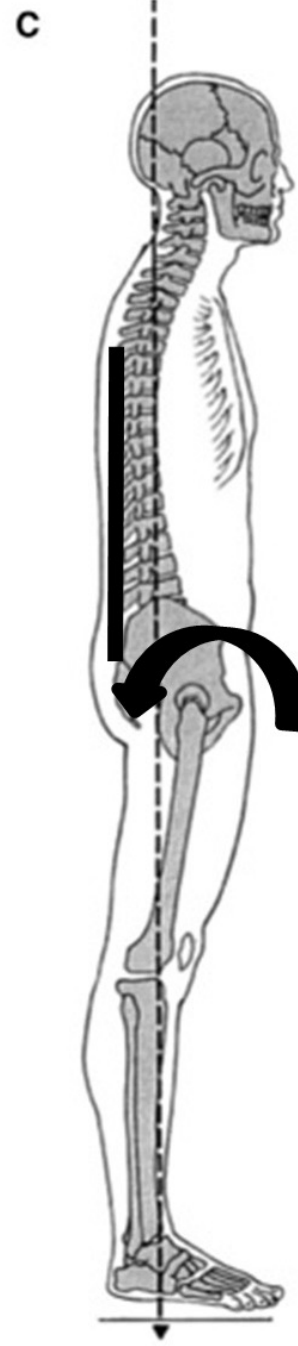
[www.yourpilatesphysio.com](http://www.yourpilatesphysio.com)



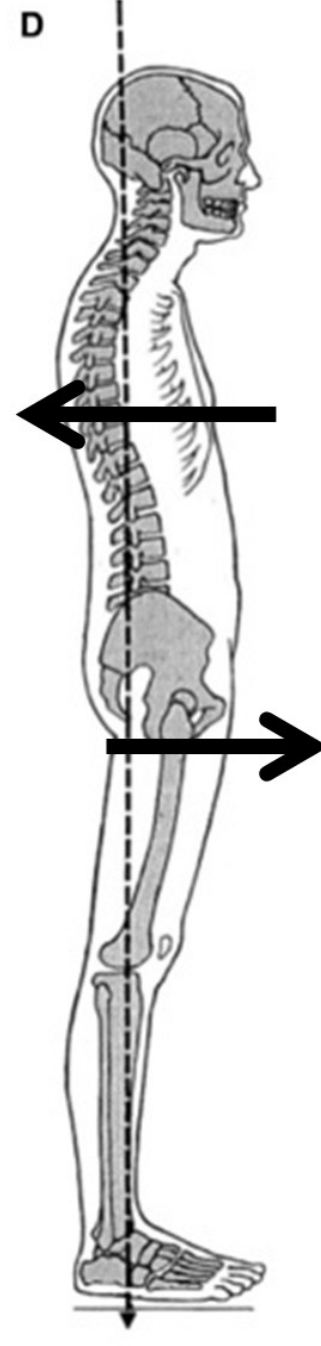
Ideal alignment.



Kyphotic-lordotic posture



Flat-back posture



Sway-back posture.





# Core Stability

Spine and  
Spinal  
Muscles

Multifidus

Diaphragm

Abdominal wall  
muscles and  
connective tissue

Transversus  
Abdominus

Pelvic floor  
muscles





# Programming

## The FITT Principle

F: Frequency

I: Intensity

T: Time

T: Type



**EVK**

# **OUR GUARANTEE**

**Move Better – Feel Better – Live Better!**