
LONGEVITY



2025 MedFit Global Virtual Conference



mfef
MedFit Education Foundation
Committed to the Health of Our Nation

OBJECTIVES



IDENTIFY 3 MODIFIABLE
FACTORS TO LONGEVITY



CORRECTIVE EXERCISE



INTEGRATE STRATEGIES



Corrective Exercise Solutions



to **Common Hip
and Shoulder Dysfunction**



Evan Osar



**HOW I
GOT
HERE...**

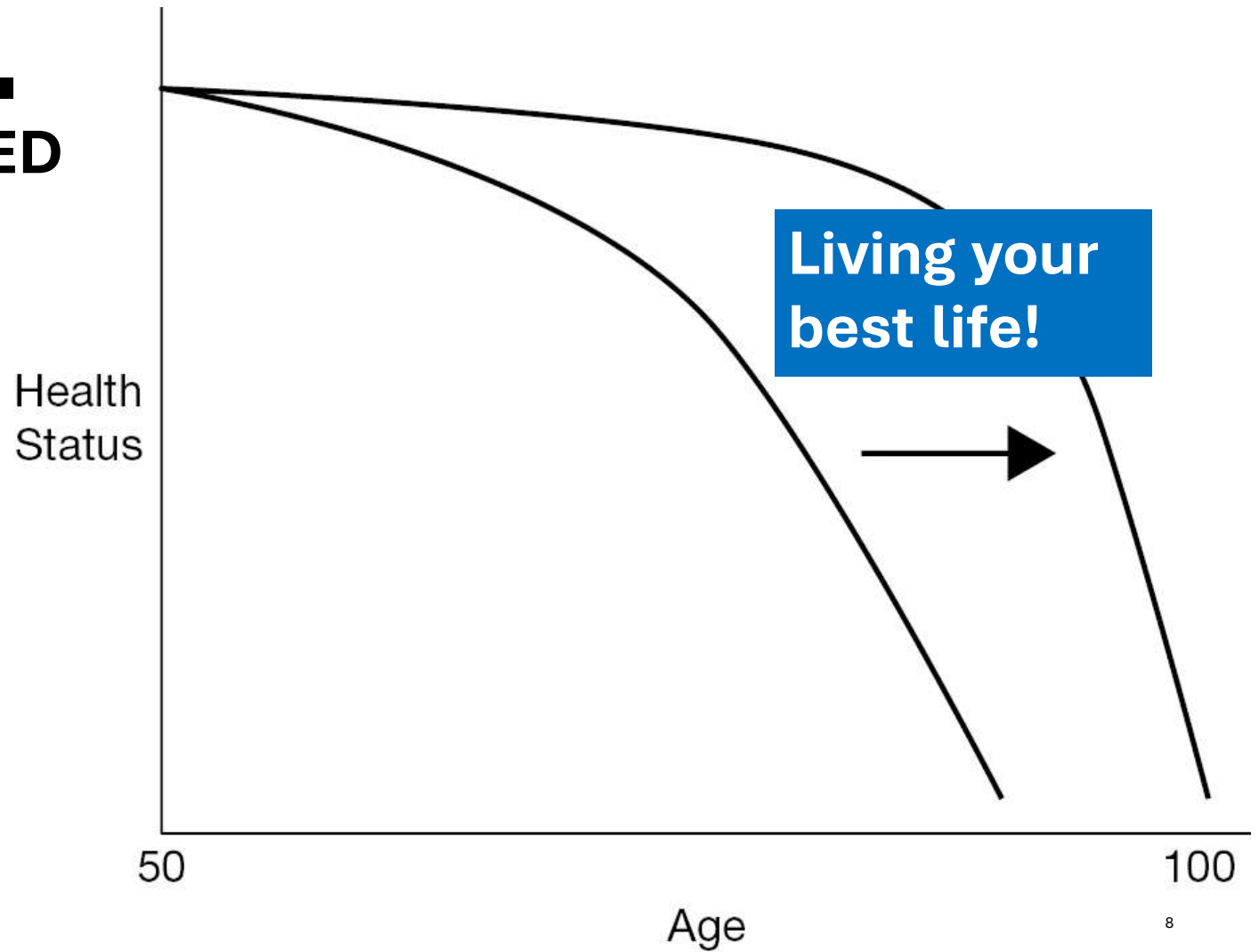


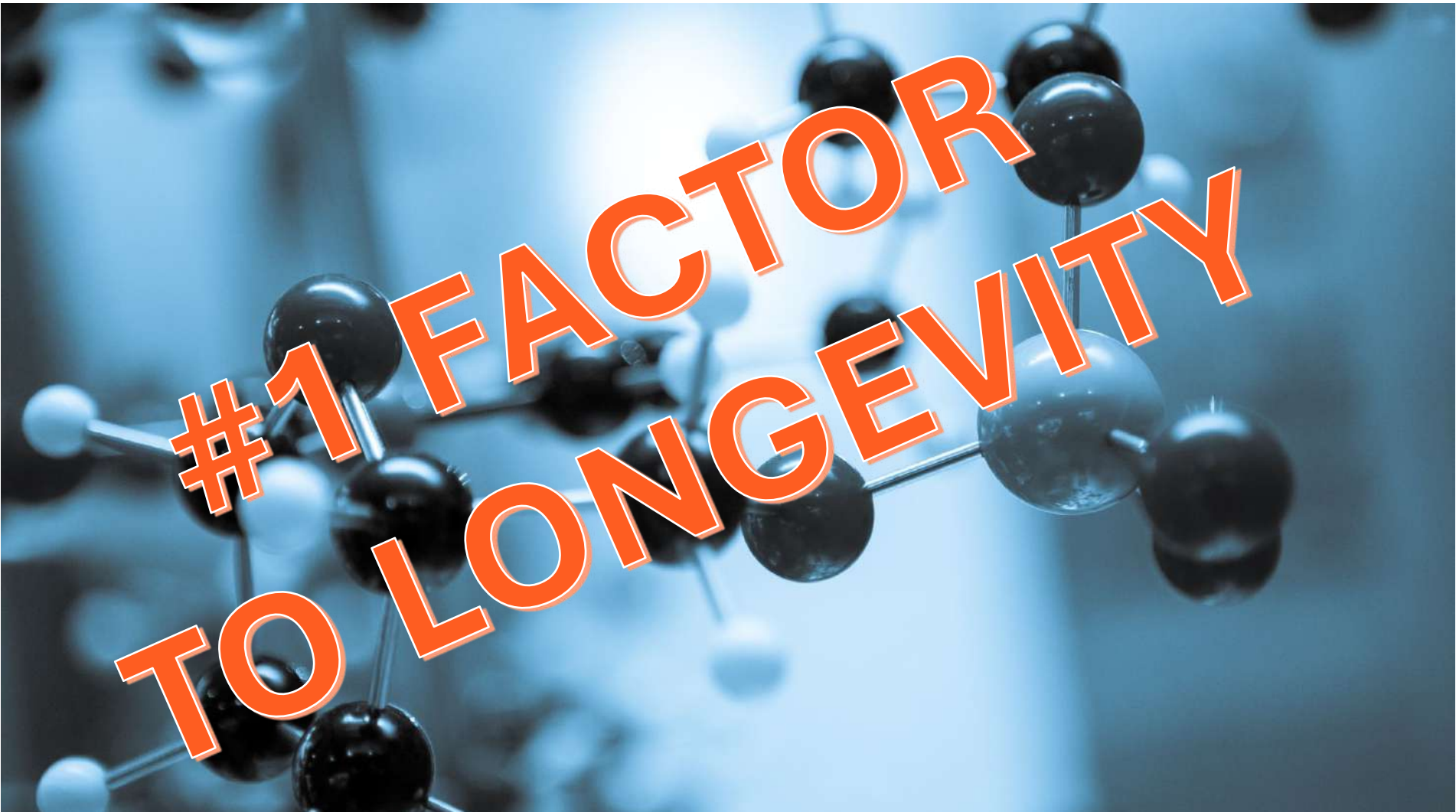


**I WASN'T PREPARED TO WORK
WITH THESE FOLKS...**



COMPRESSED MORBIDITY

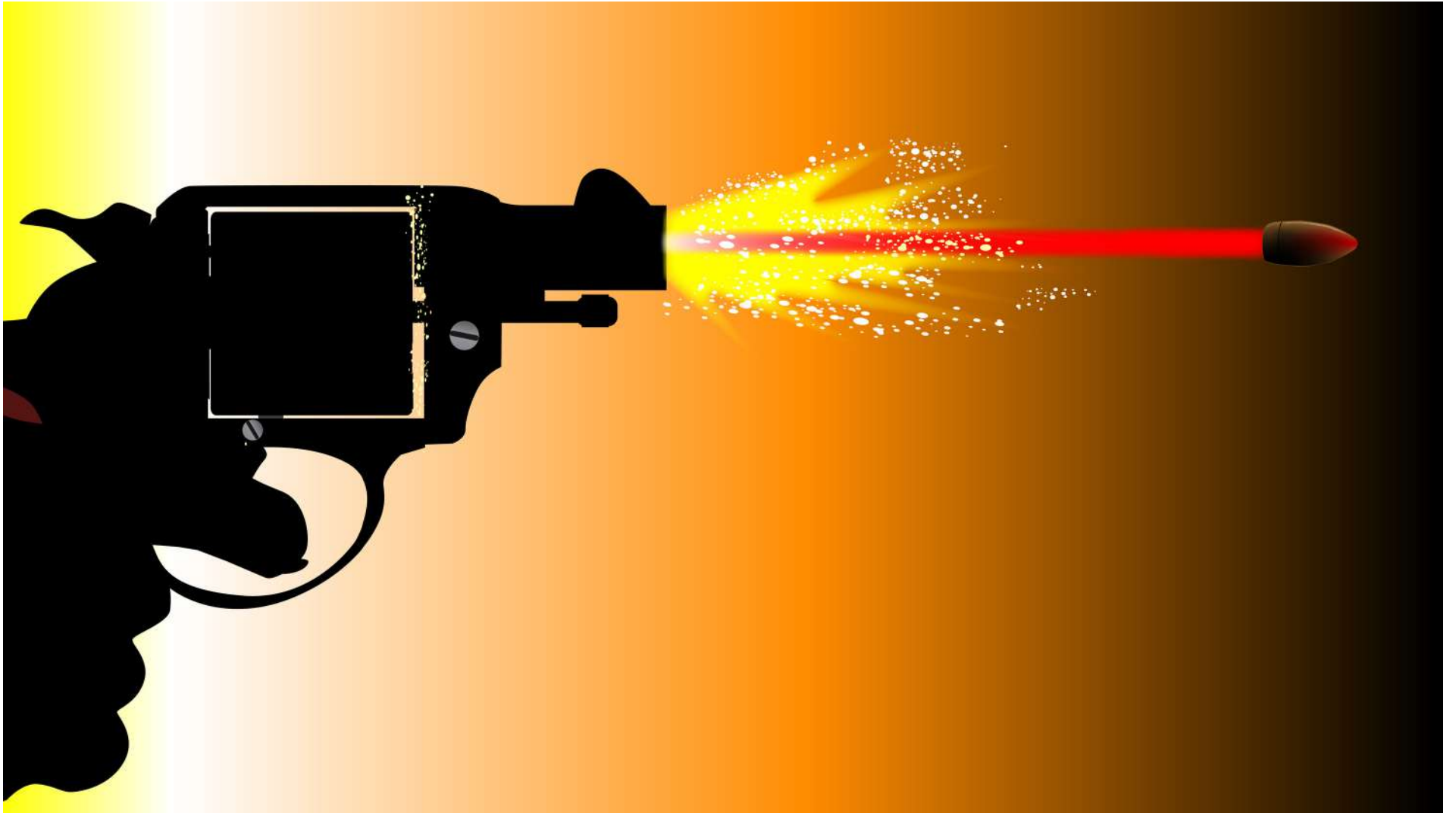




**#1 FACTOR
TO LONGEVITY**

HABITS





GLOBAL ISSUES



BALANCE

FALLS



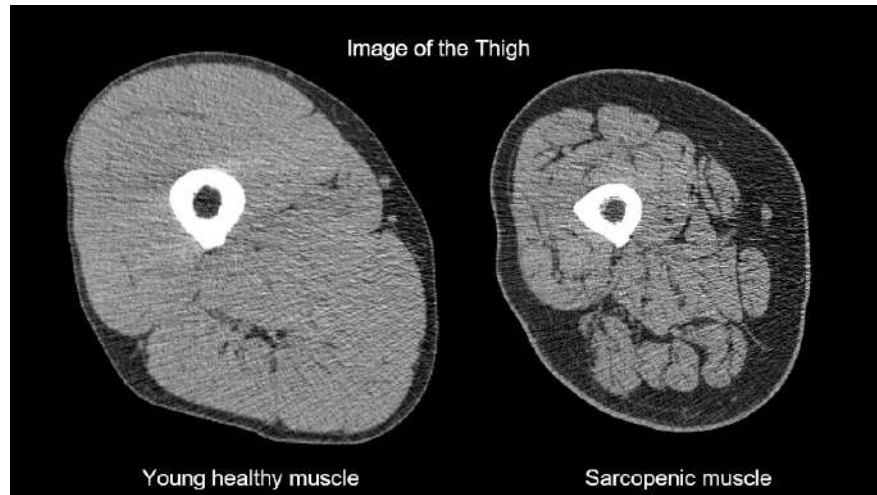
JOINTS

OSTEOARTHRITIS



FUNCTIONAL CAPACITY

SARCOPENIA



Exercise for sarcopenia in older people:
A systematic review and network meta-analysis (2023)

SARCOPENIA

- ~3-8% decrease in muscle mass per decade
- Incidence:
 - 60-70 yoa > 5-13%
 - 80 yoa > 11-50%



“...adding balance training to resistance exercise was the most effective intervention for improving physical function measures.”



Exercise for sarcopenia in older people
(2023 J. Cachexia Sarcopenia Muscle)

POSTURE BALANCE GAIT



CENTRAL PROCESSOR



MUSCULOSKELETAL
SYSTEM



BALANCE



BREATH

1. GRIP STRENGTH





“...grip strength is largely *consistent* as an explainer of concurrent overall strength, upper limb function, bone mineral density, fractures, falls, malnutrition, cognitive impairment, depression, sleep problems, diabetes, multimorbidity, and quality of life.”

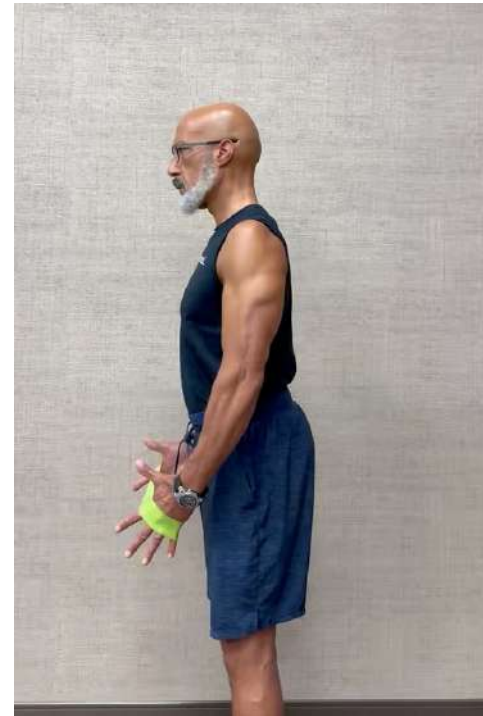
(2019. Grip Strength: An Indispensable Biomarker For Older Adults)

HAND DEVELOPMENT



OSTEOARTHRITIS

POSTURE, WRIST, & HAND



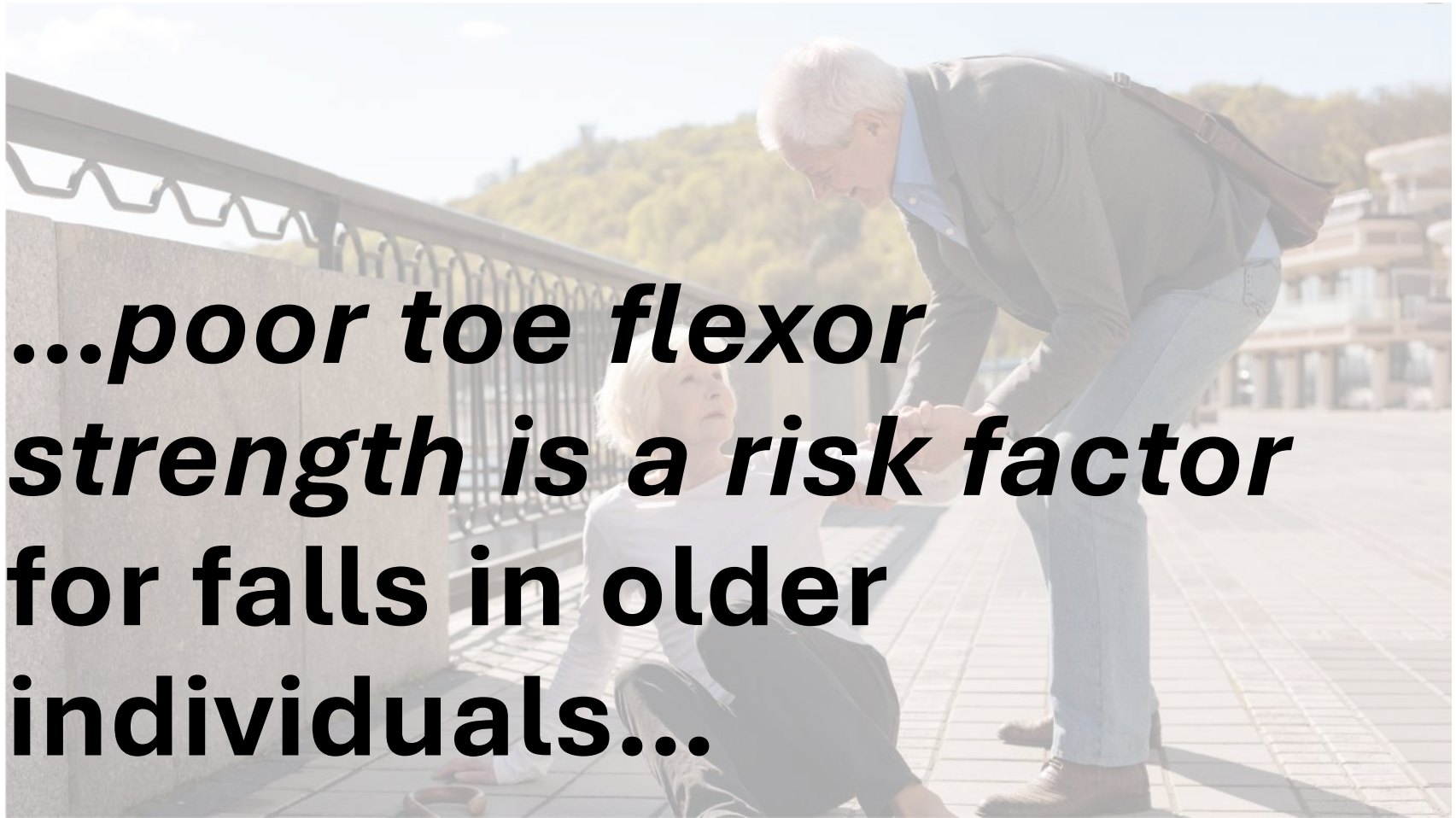


2. FOOT STRENGTH

- Age-related reduction in toe flexor strength was earlier and greater than handgrip strength...

(2017. Journal of Foot and Ankle Research)

***...poor toe flexor
strength is a risk factor
for falls in older
individuals...***



FOCUS ON YOUR FEET



- Roll your feet
- Spread your toes
- Train the foot tripod





3. WALKING SPEED

Walking speed is the 6th Vital Sign.

(2009. White paper: "walking speed: the sixth vital sign". J Geriatric Phys. Ther.)

LONGEVITY & WALKING SPEED

- “...walking speed may be more suitable than hand grip strength in women.”

Walking Speed Is Better Than Hand Grip Strength as an Indicator of Early Decline in Physical Function with Age in Japanese Women Over 65 (2022)

NON-FALLERS vs. FALLERS

- Non-fallers
 - ***increased arm swing and thoracic rotation as trunk speed increased***
- Fallers
 - ***have a more rigid and less variable gait pattern***

Old adult fallers display reduced flexibility of arm and trunk movements when challenged with different walking speeds (2017 Gait & Posture)

LOW BACK PAIN vs. NO LBP

- Pelvis and thorax rotation needs to coordinate to produce a smooth coordinated gait pattern.
- Those with LBP demonstrate difficulty ***coordinating thorax and pelvis rotation.***

Smith JA, Stabbert H, Bagwell JJ, Teng HL, Wade V, Lee SP. Do people with low back pain walk differently? A systematic review and meta-analysis.

(2022 J Sport Health Sci)

INCREASE WALKING SPEED



Align and control > neutral posture & breathing



Train hip and thoracic rotation



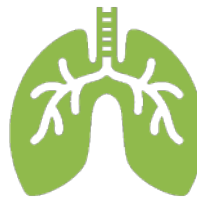
Integrate resistance, speed, & power



THE IMS PRINCIPLES



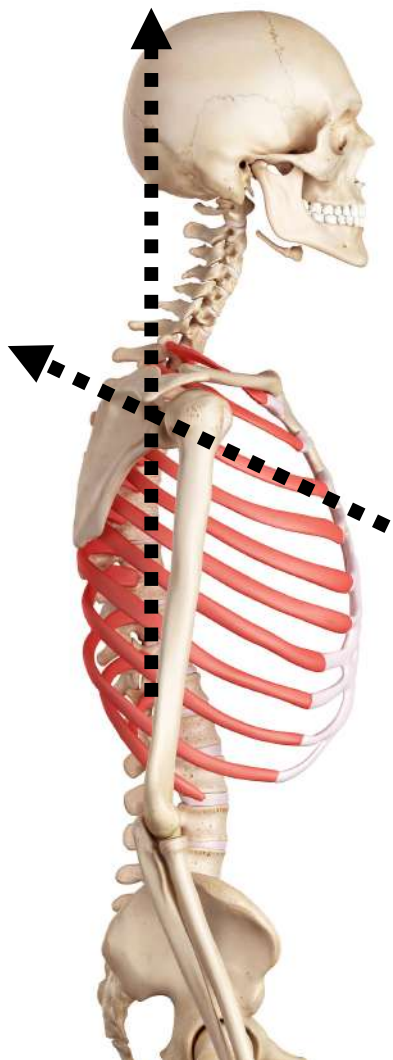
Align



Breath



Control



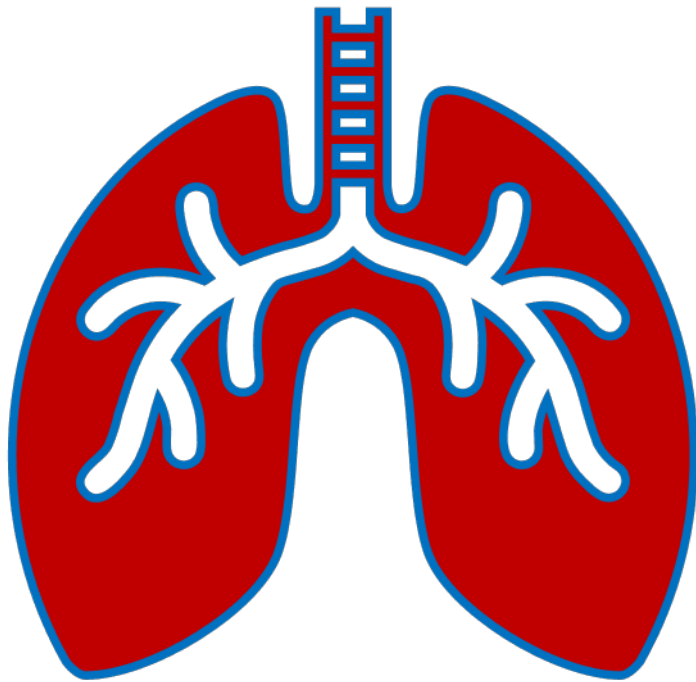
ALIGNMENT



Lengthen

Suspend

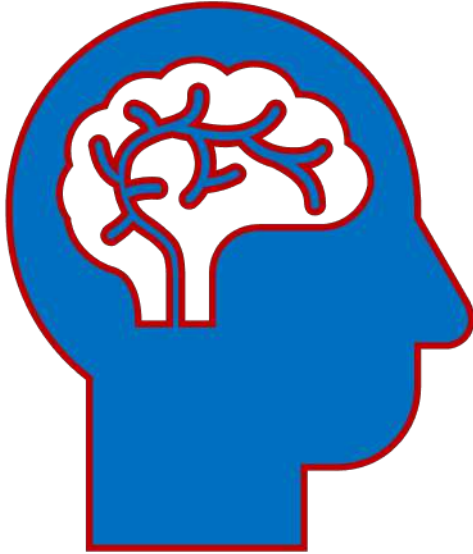
Create space (ribs)



The weaker one's lung volume was at baseline, the significantly higher was their future risk of diabetes, asthma, and all-cause mortality.

(2021. Association between lung function and future risks of diabetes, asthma, myocardial infarction, hypertension and all-cause mortality)

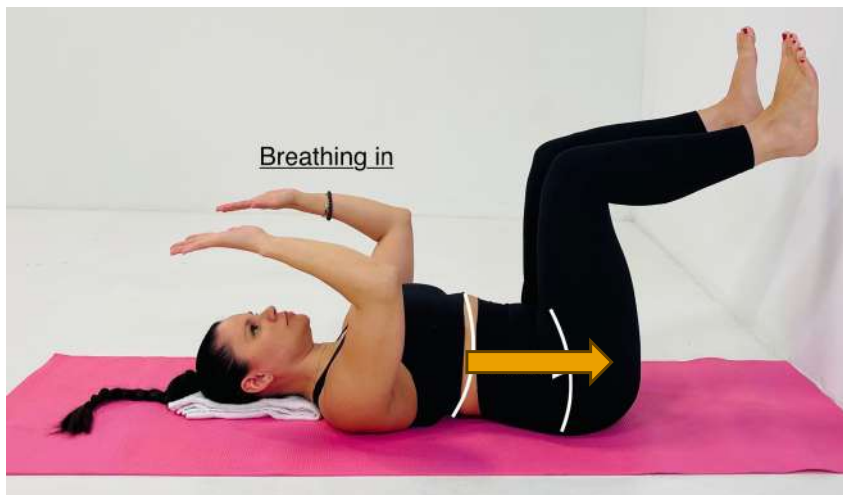




JOURNAL OF AMERICAN
HEART ASSOCIATION
(2021)

- Breathing
 - ✓ 5 sets of 6 breaths
 - ✓ 6 days a week
 - ✓ 6 weeks

CORRECTIVE EXERCISE: Optimizing Breathing & Stabilization



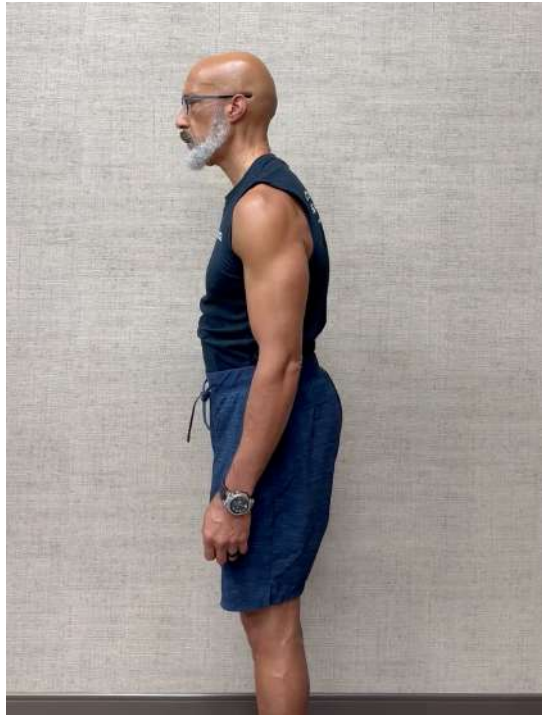
CORRECTIVE EXERCISE:

Myofascial release & Mobility



CORRECTIVE EXERCISE:

Postural Control, Breathing & Rotation



INTEGRATION - Rotation



INTEGRATION – Walk, Speed, & Power





CONCLUSION

- Focus on habits
- Train grip, toe strength, and walking speed
- Educate and empower!

Integrative Movement Institute™



www.discoverimi.com/

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