Alumni Exchange

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UIC Alumni Exchange

Keep Moving: How to Find and Keep an Exercise Routine

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Overview:

- Background terms and definitions.
- Why PA is important.
- How much is needed?
- Barriers and overcoming barriers.
- Most effective behavior change techniques.
- Bottom line? Enjoy it.

Question: Which is the correct definition of physical activity?

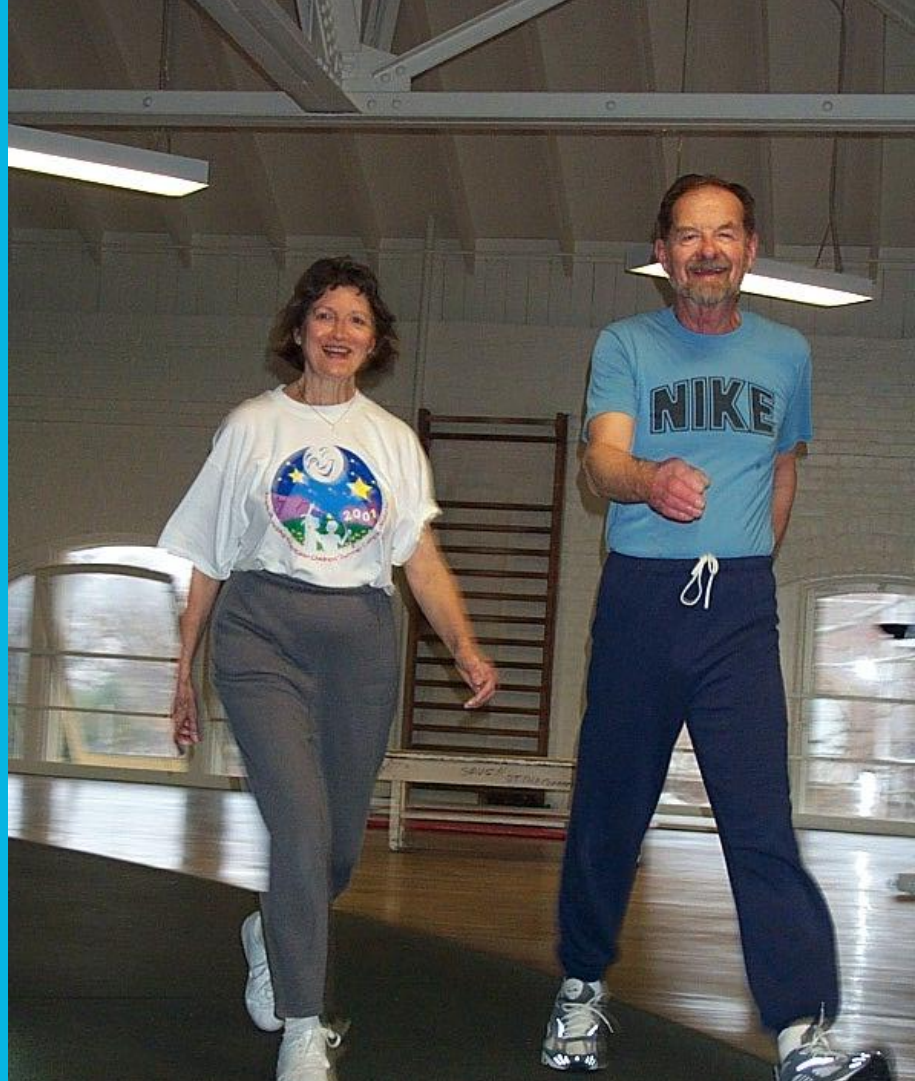
a. Any body movement produced by the skeletal muscles that results in energy expenditure.
b. Capacity/efficiency of body to do physical work.
c. Movement performed on a repeated basis over an extended period of time with a specific objective such as the improvement of health, fitness, or physical performance.
d. None of the above.

Definitions

Physical Activity: any body movement produced by the skeletal muscles that results in energy expenditure

Four domains:

- Leisure time (LTPA)
  - Exercise or Sport
- Occupational
- Household
- Transportation



Definitions – F.I.T.T.

Frequency: E.g., Number of days per week

Intensity:

- Light, Moderate, Vigorous
- Metabolic equivalents (METs)
- Percent of maximal heart rate
- Rate of perceived exertion (Borg RPE scale)

Definitions

Time/Duration: E.g., Number of minutes/hours per week

Type/Mode: E.g., Walking, Running, Cycling

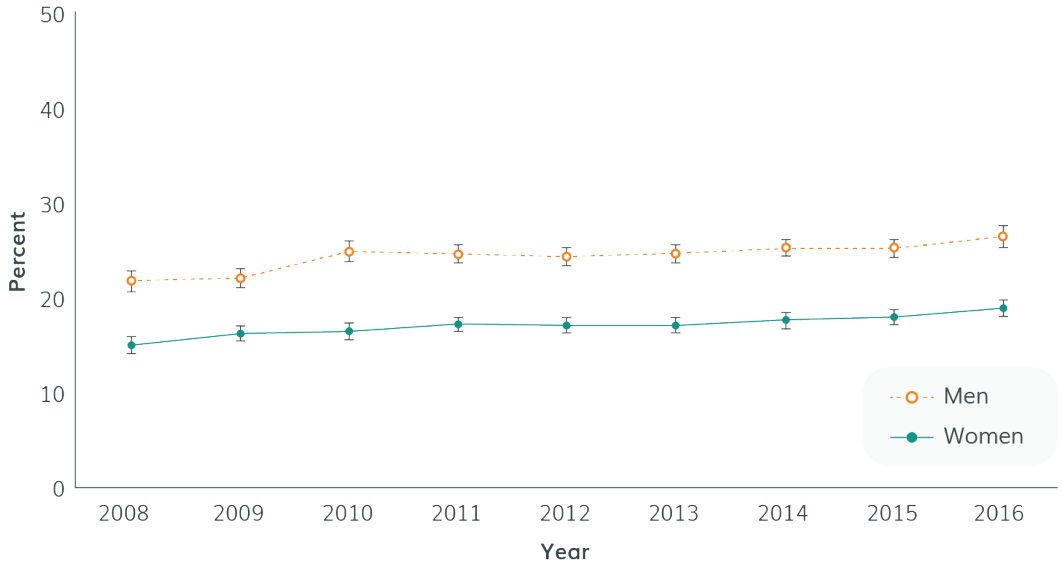
Why We Need to Promote Physical Activity

Costs of Inadequate Physical Activity*

- $117 billion dollars in annual health care costs
- 10 percent of premature mortality

*Defined as not meeting the key guidelines for adults

Percentage of U.S. Adults Ages 18 Years or Older Who Met the Aerobic and Muscle-Strengthening Guidelines, 2008–2016

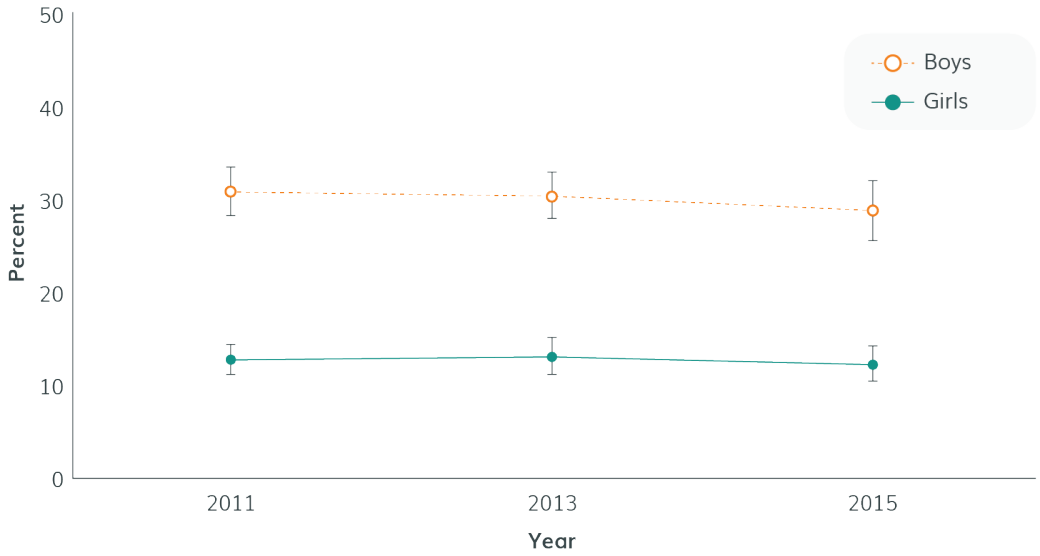


Why We Need to Promote Physical Activity

Childhood obesity rates have tripled since the 1970s.

Obesity disqualifies nearly one-third of American youth, ages 17 to 24, from military service.

Percentage of U.S. High School Students Who Met the Aerobic Physical Activity and Muscle-Strengthening Guidelines, 2011–2015



Benefits of Physical Activity for Adults and Older Adults:

- Lower risk of all-cause mortality
- Lower risk of cardiovascular disease mortality
- Lower risk of cardiovascular disease (including heart disease and stroke)
- Lower risk of hypertension
- Lower risk of type 2 diabetes
- Lower risk of adverse blood lipid profile
- Lower risk of cancers of the bladder,* breast, colon, endometrium,* esophagus,* kidney,* lung,* and stomach*
- Improved cognition*
- Reduced risk of dementia (including Alzheimer's disease)*

**New health benefit*

- Improved quality of life
- Reduced anxiety
- Reduced risk of depression
- Improved sleep
- Slowed or reduced weight gain
- Weight loss, particularly when combined with reduced calorie intake
- Prevention of weight regain following initial weight loss
- Improved bone health
- Improved physical function
- Lower risk of falls (older adults)
- Lower risk of fall-related injuries (older adults)*

Benefits of physical activity

- Interactive Body Map

Question: How much PA is it recommended that we do?

a. Any amount, but 7 days per week

b. 30 minutes every day

c. 150 minutes per week

d. 300 minutes per week

Key Guidelines for Adults:

- Adults should **move more and sit less** throughout the day. **Some physical activity is better than none.** Adults who sit less and do any amount of moderate-to-vigorous physical activity gain some health benefits.

- **For substantial health benefits, adults should do at least 150 minutes (2 hours and 30 minutes) to 300 minutes (5 hours) a week of moderate-intensity,** or 75 minutes (1 hour and 15 minutes) to 150 minutes (2 hours and 30 minutes) a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Preferably, aerobic activity should be spread throughout the week.

- Adults should also do **muscle-strengthening activities** of moderate or greater intensity and that involve all major muscle groups **on 2 or more days a week**, as these activities provide additional health benefits.

Key Guidelines for Adults with Chronic Health Conditions and Adults with Disabilities

- Same as for “adults”

- When adults with chronic conditions or disabilities are not able to meet the above key guidelines, they should **engage in regular physical activity according to their abilities and should avoid inactivity**.

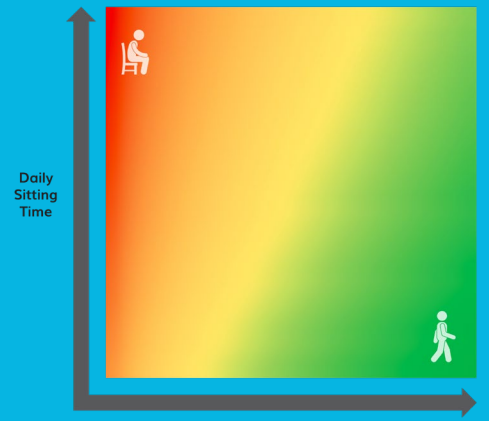
- Adults with chronic conditions or symptoms should be **under the care of a health care provider**. People with chronic conditions can consult a health care professional or physical activity specialist about the types and amounts of activity appropriate for their abilities and chronic conditions.

Move More and Sit Less

Sedentary behavior increases risk of:

- All-cause mortality
- Cardiovascular disease mortality
- Cardiovascular disease
- Type 2 diabetes
- Colon, endometrial, and lung cancers

Relationship Among Moderate-to-Vigorous Physical Activity, Sitting Time, and Risk of All-Cause Mortality in Adults



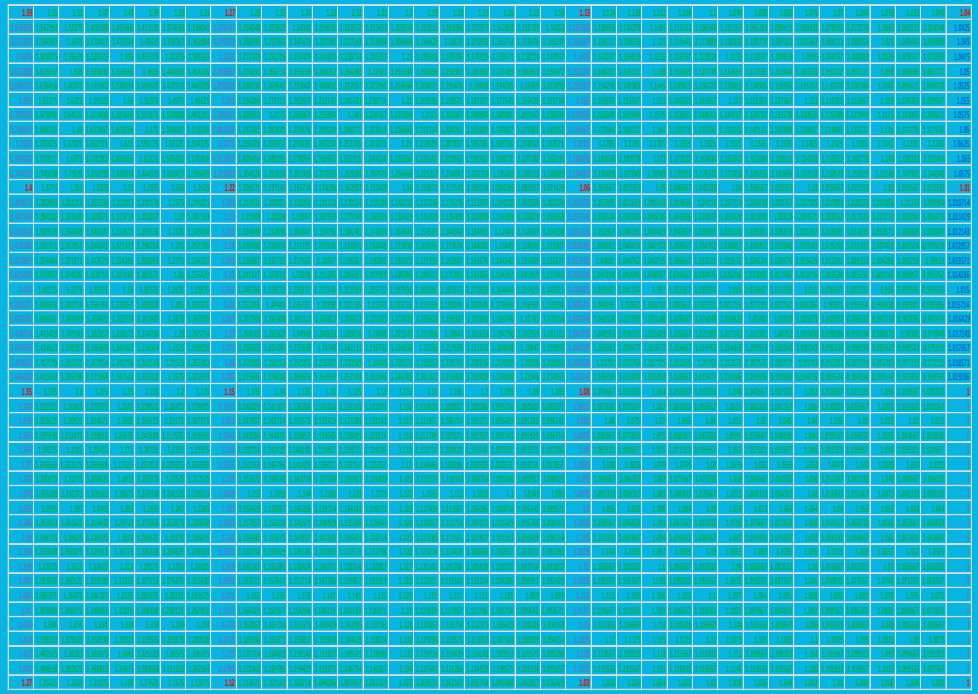
Risk of all-cause mortality decreases as one moves from red to green.

Move More and Sit Less

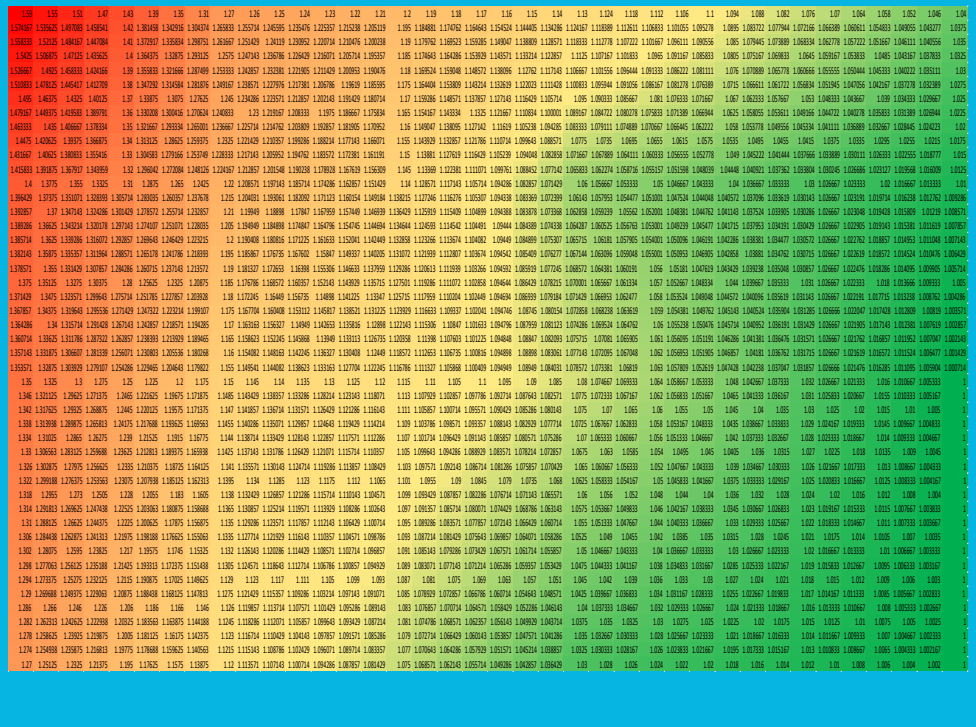
Is Actually FROM data...

Numbers are relative risks of mortality interpolated from Ekelund et al. of more than **1 million** people

Y axis -hours per day of sitting
X axis - MVPA



Add Color…….

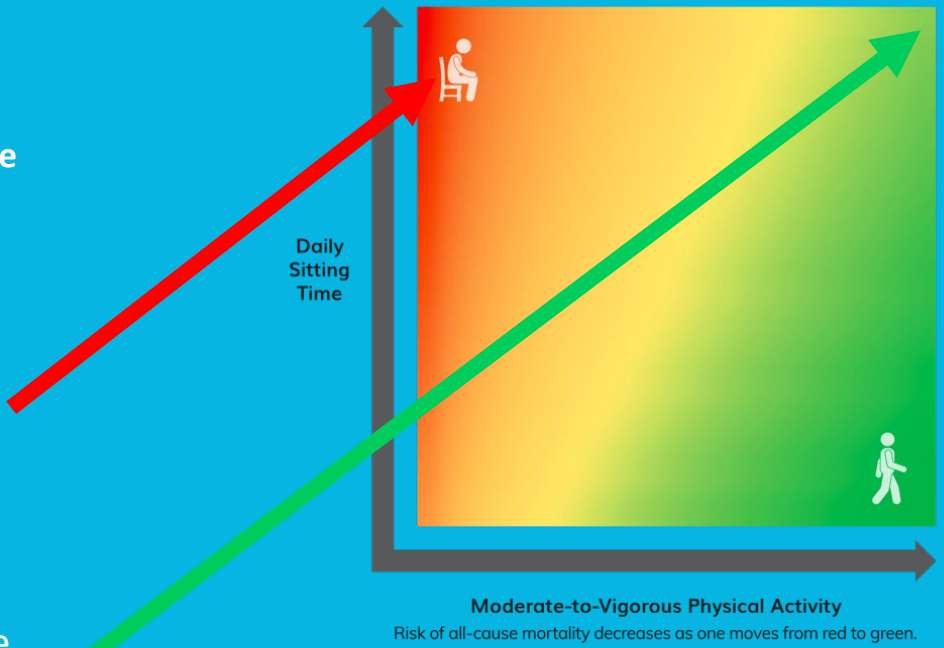


Move More and Sit Less

Relationship Among Moderate-to-Vigorous Physical Activity, Sitting Time, and Risk of All-Cause Mortality in Adults

It takes approximately 600 min/week of moderate intensity PA or 300 min/week of vigorous intensity PA to go from here …

… to here to overcome sedentary time the most sedentary of lifestyles (>8 h/day)



MVPA should be part of every adult's lifestyle, <u>especially for those who sit for large portions of the day</u>

What about Steps?

- Walking briskly for 10 minutes at 3.3 miles per hour requires about 1,000 steps.

- This equates to **between (5,000 + 2,000 =) *7,000 steps per day* and (5,000 + 4,000 =) *9,000 steps per day*** to meet weekly physical activity guidelines

Physical Activity Guidelines for Americans, 2nd edition: A1.1; page 116

QUESTION!
If being physically active is so good for us, why don't people do it?

a. Not enough time
b. Injury
c. Don't know what to do
d. Too tired
e. All of the above

Most Common Exercise Barriers and Potential Strategies

Common Problem	Example Strategies
"I don't have enough time."	• Modify frequency, intensity, time, type of PA • Examine priorities/goals • EVERY. MOVEMENT. COUNTS.
"I don't have enough energy."	• Modify frequency, intensity, time, type of PA • Exercise increases energy! In the long-term…
"I'm just not motivated."	• Determine what are effective reinforcements for you • Start low, go slow • Something that you enjoy!!! • Commit…little by little… • This is really important, I am going to find a way
"It costs too much."	• Check out exercise opportunities at home, Youtube, cable on-demand, etc.
"I'm sick or hurt."	• Plan for relapses • Have alternative plans • It's ok to take a break! Especially when sick or hurt

Adapted from ACSM's Guidelines for Exercise Testing and Prescription, 11th Edition

Most Common Exercise Barriers and Potential Strategies

Common Problem	Example Strategies
"I feel awkward when I exercise."	• Very common in today's society • Focus on self, not others • F them (forget them) and their (potential) thoughts • Buddy up • Start in home to gain confidence
"I don't know how to do it."	• Find someone who does, who you know, who you trust
"No one will watch my child if I exercised."	• Social support! • Fitness facilities that have childcare • Incorporate children into workout
"There is no one to exercise with me."	• Develop social support and exercise buddy system • Identify different types of activities you can do on your own

Adapted from ACSM's Guidelines for Exercise Testing and Prescription, 11th Edition

What behavior change techniques (BCT) are effective?

Based on extensive literature reviews, **the most effective BCTs** for **changing** exercise and other types of physical activity behavior are:

1. **Goal setting**
2. **Action planning**
3. **Self-monitoring**
4. **Reinforcing progress**

From The Psychology of Exercise: Integrating Theory and Practice

In addition, the BCT of '**problem solving**' has been identified as an important BCT for **maintaining** physical activity behavior in the long-run.

…and…

5. Problem Solving

From The Psychology of Exercise: Integrating Theory and Practice

1. Goal Setting

- Goal setting involves:
  - Assessing current level
  - Creating process & outcome goals for the future
  - Detailing actions to be taken
  - Specifying metrics

- Goals need to be S.M.A.R.T:
  - Specific
  - Measurable
  - Attainable
  - Realistic but challenging (too easy, no reward; too difficult, failure, frustration, and pessimism)
  - Time based

From The Psychology of Exercise: Integrating Theory and Practice

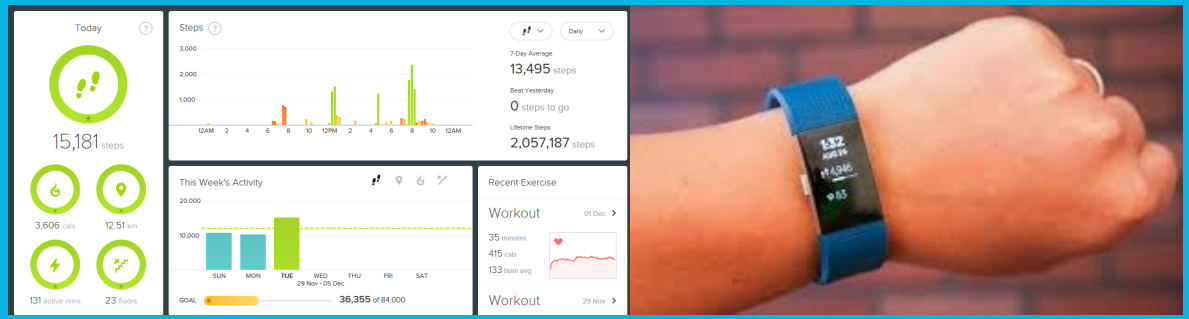
2. Action Planning

- **Action plans:** Concrete plans that specify **when, where, and how** exercise intentions will be translated into actions
- **Implementation intentions:** Involves developing a strong mental association between a situational cue and a specific behavior
  - "When…. Then…" statements
  - e.g., When my phone rings I will then get up and walk

From The Psychology of Exercise: Integrating Theory and Practice

3. Self-Monitoring

- Paying attention to one's own thoughts, feelings, and behaviors
  - Monitor level of exercise intensity (i.e., heart and respiration rates) to prevent overexertion and injury
  - Monitor daily physical activity behavior with an activity log
  - Use fitness apps/ websites



From The Psychology of Exercise: Integrating Theory and Practice

4. Reinforce Progress

- Latch onto whatever you can that is positive to build yourself up, especially in the beginning.
- Find praise, encouragement, attention, and rewards – they are very powerful.
- <u>Focus on process and effort</u>

From The Psychology of Exercise: Integrating Theory and Practice

5. Problem Solving

- **Problem solving** reduces the probability of a relapse.
- The exerciser uses ***problem solving*** to manage high-risk thoughts, feelings or situations that might lead to an exercise lapse.
- Have a plan in place for what you will do when you inevitably lapse!
- For example, **reframing** (also known as cognitive restructuring) is a BCT that involves changing how one thinks about a lapse.
  - e.g., Thinking of a lapse as normal and inevitable and not a sign of failure and hopelessness

From The Psychology of Exercise: Integrating Theory and Practice

Moving forward…

- Start low, go slow…and accept that
- There are many competing activities that are really reinforcing
- Behaviors/tasks are overwhelming if we do not break them down
- Find what works FOR YOU
- Enjoy it!
  - Behaviors we hate, which take investment of time and energy, are unlikely to continue

Acknowledgements

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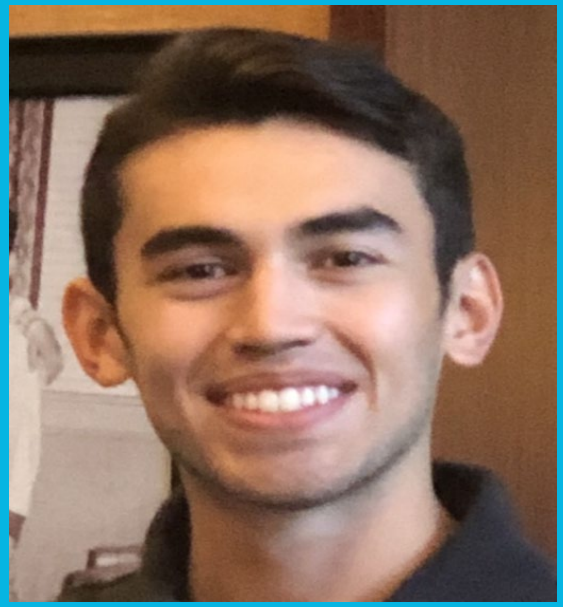

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- Thank you!

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