

Exercise Equation

How exercise factors into weight loss

Harvard Medical School, Special Health Report



2 slices Little Caesars
pepperoni pizza

560 calories

=



65 minutes of
moderate
cycling



28 tortilla chips

560 calories

=



57 minutes of
Zumba



1 can of Coca-Cola

140 calories

=



23 minutes of
walking (4 mph)



10 pigs in a blanket

490 calories

=



59 minutes of
Bikram Yoga



4 Double Stuffed Oreos

280 calories

=



1.3 hours of
weight lifting



4 cans of Miller Light

384 calories

=



32 minutes of
running (6 mph)



1 cup Chex Mix

240 calories

=



29 minutes of
high impact
aerobics

20

Exercise Benefits

- | | |
|--------------------------|---------------------------|
| 1. Reduces body fat | 11. Maintains mobility |
| 2. Increases lifespan | 12. Improves memory |
| 3. Oxygenates body | 13. Improves coordination |
| 4. Strengthens muscles | 14. Strengthens bones |
| 5. Manages chronic pain | 15. Improves complexion |
| 6. Wards off viruses | 16. Detoxifies body |
| 7. Reduces diabetes risk | 17. Decreases stress |
| 8. Strengthens heart | 18. Boosts immune system |
| 9. Clears arteries | 19. Lowers blood pressure |
| 10. Boosts mood | 20. Reduces cancer risk |



Why Moving Matters

- Exercise burn calories
- Regular exercise boosts metabolism, even when you're not exercising.
 - Weight loss slows metabolism
 - Harder the workout...the longer the boost
- Strength training is important!
 - Fat cells store calories...does not burn calories (insulin).
 - Muscle cells burn calories!
 - Weight loss = muscle loss (27%)
 - > Irisin levels = > muscles mass, strength, insulin sensitivity

Why Moving Matters

- Gut bacteria enhancement (> akkermansia muciniphila)
 - < obesity and metabolic disorders
- Brain more responsive to leptin (satiety)
 - Weight loss decreases...exercise counters
- Relieves stress and improves mood
 - Endorphins (neurochemicals)
 - Decrease emotional eating

Exercise Can Be “NEAT”

- Non-exercise activity thermogenesis – movement
 - Fidgeting, tapping, etc. (“nervous energy”)
- Boosts calorie burn
- Incorporate into day
 - Standing/pacing while on phone
 - Rock side to side when in line

15 Ways to Burn 150 Calories

15 ways to burn 150 calories

There are many ways to burn calories—through both formal exercise and everyday activity. In each of the following examples, 150 calories is an estimate; the precise amount will vary from person to person.

1. Dance for 30 minutes.
2. Bicycle four miles in 15 minutes or five miles in 30 minutes.
3. Wash and wax your car for 45 to 60 minutes.
4. Play volleyball for 45 minutes.
5. Garden for 30 to 45 minutes.
6. Push a stroller for 1.5 miles in 30 minutes.
7. Run 1.5 miles in 15 minutes.
8. Rake leaves for 30 minutes.
9. Walk two miles in 30 minutes.
10. Do water aerobics for 30 minutes.
11. Swim laps for 20 minutes.
12. Wash your windows or floors for 45 to 60 minutes.
13. Play basketball for 15 to 20 minutes.
14. Jump rope for 15 minutes.
15. Climb stairs for 15 minutes.

Getting Started

- 25% of Americans not active at all.
- 60% do not know how much is needed for weight loss/maintenance
- Consult a physician (not been active)
 - Injuries
 - Chronic illnesses
 - May recommend modifications for safety

Getting Started

- Minimal to no activity...WALK (conditioning)
 - Should be PROGRESSIVE
- Modest weight loss
 - 150 to 250 minutes per week = 30 to 50 minutes/day (5 days)
- Clinically significant weight loss
 - 250 or more minutes per week = 50 minutes/day (5 days)
- Use variety...aerobic exercise, tennis, water aerobics, ride a bike
- Strength training matters!
 - 2 weekly strength training workouts (all major muscle groups)
 - 48 hours in between (muscle recovery time)

Staying Motivated

- Do you get too tired to exercise at times?
- EXERCISE ANYWAY
 - Boosts energy (oxygen/nutrients to tissues)
 - Improves sleep
 - > Endorphins “feel good” chemicals
- Use a fitness tracker (Fitbit, Garmin, etc.)

Staying Motivated

- Schedule it - Mark exercise on your calendar
- Recruit a workout buddy
- Lay out your exercise clothes/gym bag the night before
- Sign up for a class (post-pandemic)
- Start with 10 minutes
- Exercise is a gift and blessing!

Other Lifestyle Changes that Help Shed Pounds

Going beyond food and exercise..

Lower Your Stress Level

- Stress triggers food cravings and emotional eating
 - Cortisol (stimulates appetite)
 - “Brain fuel” = Carbohydrates, glucose
- UNPLUG
- Relaxation techniques
- Exercise
- Phone a friend (social connection)
- Write it down

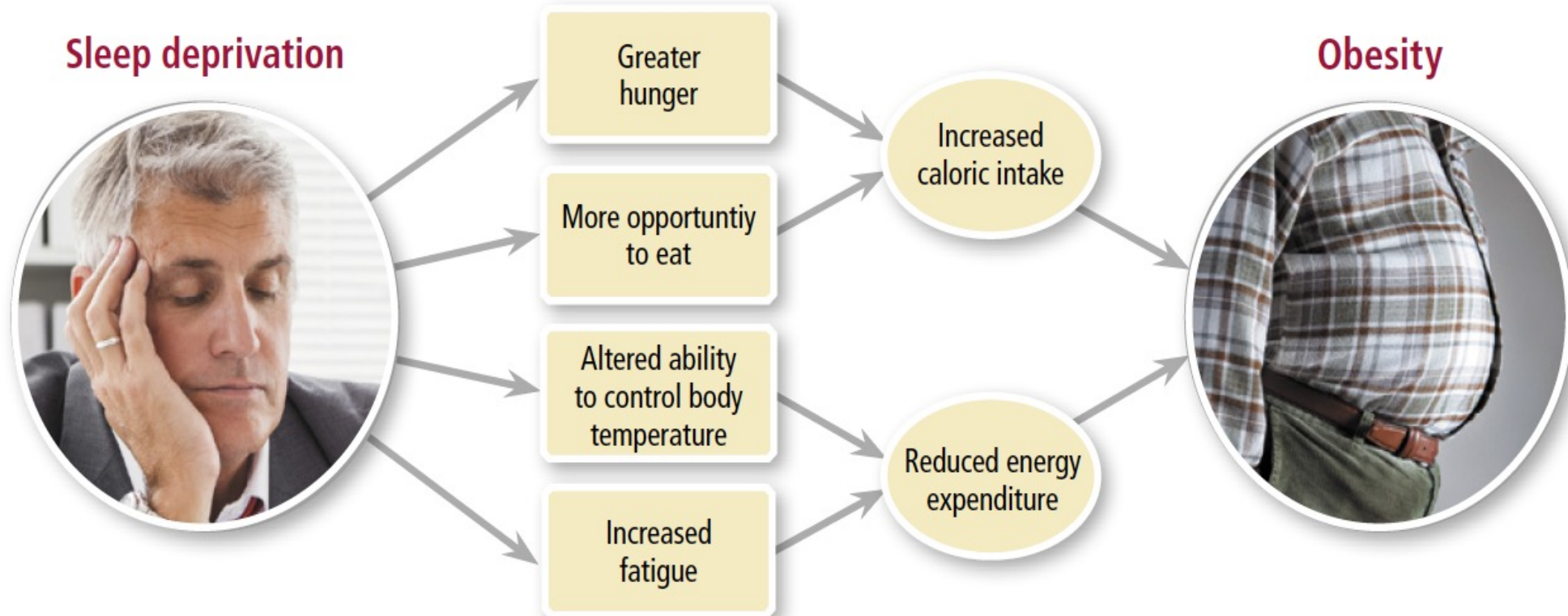
Avoid the TV Trap

- > tv time...greater body weight
- Women: 2 hours of tv/day = > obesity risk by 23%, 14% diabetes
- Sedentary
- Reduce tv time
- Stand up during commercials
- Stretch during the show
- Record and watch later (fast forward through commercials)
- Computer/phone problematic

Get Enough Sleep

- Decreased Sleep = excessive weight
- Slows metabolism...burn fewer calories
- Disrupts hormones that control hunger and appetite (ghrelin and leptin)
 - Eat 300 – 500 more calories/day
- Prioritize sleep
 - Stay on schedule
 - No electronics in bed
 - After 20 – 30 minutes, get up if you can't fall asleep

Figure 2: How sleep loss may lead to weight gain



Any
Questions?

get to
TODAY, I ~~HAVE TO~~
WORKOUT