

Fitness Essentials

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JHU Cooley Center

- 1620 McElderry Street (behind Reed hall)
- 410-955-2513
- Jhucologycenter.com
- Free weights, Cardio, Group Classes
- Personal Training
- Cheap membership! (\$30-36\$ a month)

What is Fitness?

- **1.** The state or condition of being fit; suitability or appropriateness.
- **2.** Good health or physical condition, especially as the result of exercise and proper nutrition.
- **3.** *Biology* The extent to which an organism is adapted to or able to produce offspring in a particular environment.

Physical Fitness Defined:

The ability to function efficiently and effectively, to enjoy leisure, to be healthy, to resist disease, and to cope with emergency situations.

Pillars of Fitness:

- Strength
- Aerobic Capacity
- Flexibility: (Movement)

Strength:

Body's ability to generate force.

Force:

- $F = MA$
- Newtonian Force equation
- Basis for everything in gym!

Strength:

- Walking up stairs
- Squatting down to pick up something
- Walking the dog
- Carrying Groceries

All take strength!!

Strength: Benefits of Strength Training

1. Increase in force production

- Everything becomes lighter!
- Moving, lifting, climbing, picking up become easier.
- Decrease chance of catastrophic orthopedic injury.

2. Bone Mass

- Thicker, denser bones
- Off set osteoporosis
- Resistance to injury

Strength: More Benefits

3. Increase in muscle mass

- Burn more calories a day at rest. (about 7-10 per pound)
- Better posture
- Recover from injuries faster

Strength Training:

- Start Conservatively.
- Choose mostly multi-joint movements.
- Sets, reps and exercises don't matter as much as hard work and consistency.
- Ideally 3-5 times/ wk 15-30+ minutes
- Something is ALWAYS better than nothing!

Aerobic Capacity: Defined

- Ability of the heart (and working muscles) to use oxygen during exercise up to 85% of maximum heart rate.

Aerobic Capacity: Benefits

1. Lower Resting Heart Rate

- Life in general becomes easier
- Stress is less stressful

2. Stronger heart

- Heart is more likely to continue to function properly if a disease or pathology becomes present
- Quicker recovery from strenuous activity

3. Better Sleep

- Autonomic nervous systems ability to regulate is improved- "fight or flight"

Aerobic Capacity Training:

- Start Conservatively!
- 3-7 times a week.
- Work up to at least 20 minutes a day.
- Preferably done together (hormone and enzyme response).
- Separate bouts are fine if necessary.

Aerobic Capacity Training

■ Max heart rate 2 formulas:

1. Non Nerd Formula: $220 - \text{age}$

Example: 38 year old woman, $220 - 38 = 182$ beats per minute

1. Nerd Formula (the one I use):

$(220) - (\text{your age}) = \text{MaxHR}$

$(\text{MaxHR}) - (\text{resting heart rate}) = \text{HRR}$

$(\text{HRR}) \times (60\% \text{ to } 80\%) = \text{training range } \%$

$(\text{training range } \%) + (\text{resting heart rate}) = (\text{your target training zone})$

Flexibility/ Movement Definition

The range of motion of an anatomical joint

1. May Decrease risk of injury
2. Full ROM is necessary for optimal movement
3. Full ROM allows whats suppose to move to move.....
4. Keeps what shouldn't move still and stable- that's where injuries occur!

NEPA: Non-Exercise Physical Activity

- Anything that burns calories!
- Can account for more calories than actual exercise.
- Stairs
- Gardening
- Parking farther away
- Cleaning

Getting Started

- 3-7 days a week
- 15-30 minutes to start
- You WILL be sore at first...it does stop
- Exercise is not fun until you become accustomed to it.

Getting Started: Pitfalls

Beware where you get your information:

- The internet: Unregulated information.
- Magazines: US, OK, Glamour, Vogue, etc...they lie!!!!
- Models/ Actresses are paid what they are because of the way they look.

Getting Started: Pitfalls

- Unrealistic expectations: wgt loss, effort, food taste
- Rewards: NOT FOOD RELATED!
- Social Support: People will try to sabotage you.

The Secret

- Consistently Consistent.....Consistently
- 90% Compliance: Diet and Exercise
- 5 hours a week seems to make the biggest changes quickest! Less than 1 hour a day.

You are in Control:

It is your fault :

Success or Failure

- Don't give others the credit for what you can or have accomplished.
- Don't blame others for your current state of affairs.
- Time, spouses, kids, activities- ALL EXCUSES, not reasons
- If you have 30 minutes a day you've made an excuse, not had a reason!

Thank You!

- Thanks for listening to me ramble!
- B.S. Meter= *always* on
- Don't be intimidated, everyone was a beginner at some point.
- Ask for help....
- roypumphrey@gmail.com

Actions = Outcomes