

# Exercise as Medicine at AHFM

---

## **Affiliated institution and department**

University of Connecticut School of Medicine, Department of Family Medicine and Sports Medicine

## **Contributing QI team members**

Alex Mafdali MD, Denny Burgess MD, Sophia Rashid Khan MD, Silky Kataria MD, Laura Chaplin DO



# Introduction – Prevalence & Health Consequences

---

- The prevalence of obesity has grown exponentially over the past 35 years and has grown to reach epidemic proportions in the United States (1).
- At least **60% of US adults** are currently overweight or obese and it is estimated to affect the lives of over a billion people worldwide by 2030 (2-3).
- Obesity has various known negative health consequences including increased risk of (1):
  - Cardiovascular disease (CVD)
  - Metabolic disease
  - Musculoskeletal disorders
  - Certain cancers: endometrial, breast, ovarian, prostate, liver, gallbladder, kidney, and colonThese risks are higher in patients with comorbidities such as type 2 diabetes mellitus (T2DM), hypertension and dyslipidemia.

# Introduction – Interventions & Guidelines

---

- Adequate exercise in conjunction with diet and behavioral modifications remain as the foundation towards effective obesity management (1).
- Current guidelines recommend exercise programs for weight loss management in obesity that incorporate **moderate intensity aerobic exercise** (defined as 3-6 metabolic equivalents) and supplement this priority with **resistance training** when possible.
- An effective exercise prescription with careful screening to determine a patient's capacity for engagement in physical activity should help a patient develop their fitness, maintain health, and/or treat specific conditions/comorbidities



# Home Exercise Prescription (HEP)

---

Ideally, a Home Exercise Program/Prescription should include exercises that improve aerobic fitness, strength, and mobility

**Aerobic exercise** is a general term, often referred to as endurance training, and includes any activity that develops cardiovascular and pulmonary fitness. It is an important component of an exercise prescription with an abundance of evidence supporting its benefits for health.

A typical exercise prescription can be created using the **FITT mnemonic**:

- **F** – Frequency: Number of days per week (ideally three or more)
- **I** – Intensity: Moderate or greater
- **T** – Time: Number of minutes per session (ideally 30 minutes or longer)
- **T** – Type: Activities that involve major muscle groups

# FITT Prescription for Sedentary Beginning Exerciser

<b>Frequency</b>	<b>Three days per week</b>
Intensity	Moderate*
Time	20 to 30 minutes
Type	Brisk walking

FITT: Frequency, intensity, time, and type of exercise.

\* During moderate intensity exercise, a person is too winded to sing but is not so winded they cannot talk.

Graphic 117935 Version 1.0

© 2021 UpToDate, Inc. and/or its affiliates. All Rights Reserved.

# FITT Prescription for Non-Sedentary Beginning Exerciser

<b>Frequency</b>	<b>Three to four days per week</b>
Intensity	Moderate*
Time	30 minutes
Type	Brisk walking PLUS One set each of: Body weight squats × 10 Plank hold for 30 seconds <sup>¶</sup>

FITT: Frequency, intensity, time, and type of exercise.

\* During moderate intensity exercise, a person is too winded to sing but is not so winded they cannot talk.

¶ Refer to relevant UpToDate tables and topics describing bodyweight exercises for pictures and explanations of the exercises included in this prescription.

Graphic 117936 Version 1.0

© 2021 UpToDate, Inc. and/or its affiliates. All Rights Reserved.

# FITT Prescription for Intermediate Exerciser with Running

<b>Frequency</b>	<b>Four to five days per week</b>
Intensity	Moderate*
Time	30 minutes
Type	Jogging PLUS Two sets each of: Body weight squats × 10 Planks × 30 seconds Elevated push-ups × 10 Horizontal (assisted) pullups × 10¶

FITT: Frequency, intensity, time, and type of exercise.

\* During moderate intensity exercise, a person is too winded to sing but is not so winded they cannot talk.

¶ Refer to relevant UpToDate tables and topics describing bodyweight exercises for pictures and explanations of the exercises included in this prescription.

Graphic 117937 Version 2.0

© 2021 UpToDate, Inc. and/or its affiliates. All Rights Reserved.

# QI - Exercise as Medicine at AHFM

---

- Our QI aims to improve physician comfort level with writing and discussing home exercise prescriptions for patients.
- Baseline: We will conduct a survey in the form of a questionnaire to assess the familiarity and comfort level of physicians in our office with writing HEPs.
- Intervention: We will use this information to create an educational session and provide additional tools (dot phrase, etc)
  - Current dot phrases include the exercise prescription in the previous three slides (.asyfitt1, 2 & 3)
  - Will also include dot phrases of exercises to be done that can be printed as handouts to give at the end of the visit
- Reassessment: We will conduct a final survey to reassess comfort level with prescribing home exercise prescriptions after approximately 6 months.

# Physician Questionnaire – Example Questions

*Scale of 0 to 5 - 0 being not at all, 5 being extremely*

---

1. How familiar are you with the term home exercise prescription (HEP)?
2. How comfortable are you with writing a HEP for your patients?
3. How likely are you to write a HEP for a patient within the next month?
4. How likely do you think your patient would be to adhere to a HEP?



# References

---

1. Bray GA, Ryan DH, Wilding JPH. Management of obesity. *Lancet*. 2016;387(10031):1947–1956.
2. World Health Organization. Obesity and overweight. WHO Fact sheets website.
3. World Health Organization. Preventing noncommunicable diseases. WHO Fact sheets website.
4. Haslam DW. Obesity. *Lancet*. 2005;366(9492):1197–1209.
5. American College of Sports Medicine. *ACSM's Guidelines for Exercise Testing and Prescription*. 10th ed. Philadelphia: Wolters Kluwer Health; 2018.