

Foundations for Fitness

This section of the AIM-HI manual provides educational background information on fitness – physical activity, healthy eating, and emotional well-being. The AIM-HI program has also created some **patient scenarios** you might recognize for your own practice. These scenarios can be found within the AIM-HI toolbox. They were developed to allow you the opportunity to work through some common patient situations with your staff and role-play these types of fitness conversations. They are laminated and can be separated so that you may share them in a staff meeting for awareness, education and further discussion.

Physical Activity and Health

The beneficial effects of physical activity on disease prevention and treatment are well established. Despite the wealth of scientific evidence supporting the promotion of physical activity, the practice of promoting physical activity remains a formidable challenge. The following paragraphs provide an overview of physical activity and some general considerations for those intending to incorporate more activity into their lives.

Overview and Assessment

The first when promoting physical activity is to assess a patient's current level of activity and interest in moving more. Using the **AIM-HI Fitness Inventory** to guide your conversation, you may identify opportunities for the patient to increase movement or "energy out." For example, you may inquire about

- participation in organized sports and social activities,
- household chores,
- yard work,
- walking to work or kids to school, and
- unorganized play (e.g., with children or friends).

See "Every Little Bit Counts," Appendix D. You'll also want to quantify a patient's time spent in sedentary behavior such as viewing television, surfing the Internet or playing computer games. Lastly, you'll need to help the patient identify obstacles or barriers to physical activity. See "Overcoming Exercise Obstacles," Appendix G. For example, negative attitudes, perceived lack of time, unsafe neighborhoods or medical conditions may keep your patients from participating in certain activities. Ask patients to consider walking stairs

or doing a movement during each TV commercial. If the patient has children, they can make a family commitment to stretch or walk in place during each commercial. Acknowledge potential barriers and identify opportunities to make small healthy changes in their daily routine.

Encourage your patients to use the **AIM-HI Food and Activity Journal**, described in more detail on page 18, to collect this information. Journaling is an effective tool enabling patients to assess their current activity level and track progress. This is also an important tool to review during repeat visits.

Prescribing Physical Activity

When discussing changes with patients, you can use the **Fitness Prescription** described on page 16. You may also use the **patient scenarios** for ideas on how to establish the dialogue.

The general health benefits of increasing physical activity extend to patients of all ages and abilities. Guidelines from the US Surgeon General, the US National Institutes of Health and the US Centers for Disease Control and Prevention in collaboration with the American College of Sports Medicine **recommend people participate in 30 minutes or more of moderate-intensity physical activity on most, and preferably all days of the week.** For patients wanting to lose weight or maintain weight loss, the duration of moderate-intensity physical activity needs to be increased to at least 60 minutes per day; however, the majority of your patients would be overwhelmed with this goal. Measuring steps, walking after dinner three times a week or use of stairs at work is much more reasonable for the patient. Some patients will be receptive to steps while others will be more time or event focused. Identifying patient preferences, through a patient-centered conversation, will help you together build a fitness prescription that is specific, actionable and sustainable.

Patients in the "preparation or action" stage may be receptive to the **F.I.T.T. principle** to gain a training effect from their fitness prescription. F.I.T.T. stands for **F**requency, **I**ntensity, **T**ype and **T**ime. Please keep in mind these are general guidelines for individuals of low to moderate fitness levels.

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Strategies for Increasing Physical Activity

For patients who are either overweight or obese, increasing physical activity levels to 60 minutes on most, and preferably all, days of the week is a daunting task.

The **Fitness Prescription** is intended to help a patient set personalized, realistic, actionable and sustainable goals for increasing physical activity.

Here are simple suggestions that might help:

- **Decrease sedentary behavior.** Reduce periods of inactivity by setting limits on screen time (e.g., 1-2 hours/day of television watching, computer usage and talking on the telephone). These limits may prompt patients to choose other pastimes that will promote more activity.
- **Increase daily lifestyle activity.** Walking to work, taking the stairs, taking on household chores should be viewed as an opportunity not an inconvenience. Pedometers, or step counters, are an effective way to monitor and increase a patient's level of physical activity.

The addictive effect of decreasing sedentary behavior, increasing lifestyle activity, participating in planned physical activity or exercise and taking part in active sports and leisure makes a goal of participating in 60

minutes of moderate intensity physical activity very attainable.

Increasing the Likelihood of Success for Patients

It is probably safe to assume most patients know that regular physical activity is an important component of overall health and fitness; however, this belief is seldom sufficient to initiate and maintain a program of increased physical activity. Using one or more behavioral management strategies (shown in the table below) will facilitate the long-term adoption of a physical activity program.

Healthy Eating

Family clinicians can help improve the health of their patients by discussing healthy eating during preventive visits and other “teachable moments.” They should also include practical nutrition recommendations in the treatment plan wherever appropriate.

As with other lifestyle interventions, the clinician's role is to facilitate the process according to the patient's interest and motivation as elicited in the **AIM-HI Inventory** and the patient-centered conversation.

Social Support	Support from family and friends enhances adherence to exercise programs. Peer supports (e.g., tell a friend or bring a friend, exercise buddy system) or professional health educator supports (e.g., telephone follow up from a clinician or physical therapist) are extremely effective strategies.
Self-efficacy	Urge patients to choose activities that interest them and start at a level that they are confident they can do.
Health Contracts	The Fitness Prescription is a written agreement negotiated with the patient to accomplish a health goal. Use the Fitness Prescription to facilitate discussion and help patients set realistic, temporal and measurable goals for physical activity.
Regular Performance Feedback	Provide regular, sincere feedback. Don't underestimate the power of your sincere words as a powerful reward and motivator. Make sure your comments focus on the behavior (e.g. “Wow, you have been exercising consistently for four weeks!”) rather than on the outcome (e.g. weight loss). Also try to make sure that your compliments are related to the patient's specific goals (e.g. “It must feel great to have so much more energy than you did before!”). Feedback fosters adherence with their physical activity program and can help keep them focused on reasonable expectations.
Positive Reinforcement	Encourage patients to identify tangible rewards for reaching short and long term goals. Examples of rewards include depositing a quarter in a jar for each exercise session (to be used to purchase a reward), recording their favorite programs to watch while they exercise or taking a hot bubble bath afterward.

Goals:

- Establish sustainable healthy eating habits using an incremental, non-diet approach.
- Develop optimal health and well-being.
- Prevent and treat chronic disease.
- Achieve appropriate energy balance to reach and maintain a healthier weight .

Benefits:

For those patients who are overweight, even a 5 to 10% weight loss can produce significant health benefits.

Focus on all the health benefits of a change, not just weight loss since improved nutrition and increased activity is beneficial even without any concomitant decrease in weight.

Counsel patients to look for signs of progress that are meaningful to them, for example:

- Increased energy levels and stamina.
- Enhanced function in daily living.
- Improvement in the way their clothes fit.
- Improved health measures like cholesterol levels, blood sugar and blood pressure.
- Improved sense of well-being.

A Non-diet Approach to Healthy Living

Straight weight-reduction diets just don't work for most people in the long run. As patients turn to you for advice and information about various popular diets, you may want to discuss that, while some diets may offer a quick fix, it is often only a short-term solution. For many patients who have tried one diet after another, it is important to help them discover an understanding of WHY diets have not worked for them in the past.

Because the solution to managing weight is more complex than simply knowing what to eat and how to exercise, AIM-HI uses a non-diet approach that allows people to let go of restrictive and complicated diet rules and instead, learn simple steps to lead a healthy lifestyle that can be mastered one manageable piece at a time.

The Eating Cycle

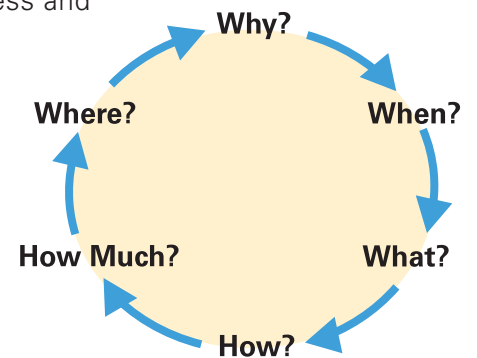
The Eating Cycle, developed by family physician Michelle May, M.D., FAAFP, is a helpful paradigm for understanding the complex issues that affect a person's eating decisions. The Eating Cycle is

focused not just on what and how much people eat, but why they eat in the first place, so it is particularly helpful for patients who have tried dieting without long term success. It helps them learn to distinguish their biologic need for food as indicated by physical hunger from the emotional or environmental cues that trigger an urge to eat or overeat. This allows them to gradually improve their dietary quality and self-regulate their caloric intake in an environment where tempting foods are abundant and sedentary lifestyles are common.

Weight-reduction diets focus on what and how much people should eat without addressing why they are eating in the first place.

A full explanation of the Eating Cycle is beyond the scope of this manual but the main concepts are summarized in the table below, along with conversation starters and "bite-sized" messages that could be discussed during an office visit with a receptive patient.

Keep in mind that this is an incremental process and you should not attempt to address all of these issues at one time.



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Small Changes, Big Results

Guide patients to make realistic, sustainable adjustments to their lifestyle. Small, incremental changes are far more likely to be successful than an “all or nothing” approach.

Encourage them to share their challenges as well as their successes and let them know that they do not need to be perfect to achieve meaningful results. Help them view their mistakes and relapses as a normal part of the process and as an opportunity to better understand why they make certain choices so they can improve those choices in the future.

Some patients will require more intensive intervention and ongoing support than is practical or available in

most medical settings. Identify a “team” of community resources, programs and health care professionals skilled in lifestyle approaches that integrate nutrition, physical activity and behavioral approaches so that you and your office staff can make the appropriate referrals when necessary.

For specific tools to use with patients to address healthy eating, see section “Working With Patients.” This includes practical handouts to support some of the specific small changes a patient may be interested in undertaking. These are just examples; patients may have other goals and the clinician may have other resources they have found useful.

Decision	Possible questions to start the conversation	Bite-sized Messages
<p>Why? Why do I eat?</p>	<ul style="list-style-type: none"> • Why do you think you eat? • Are you aware of any situations of emotions that trigger you to want to eat when you aren't hungry? (Examples: mealtimes, ballgames, certain people, stress, boredom, buffets, getting ready to start a diet) • Have you tried a lot of diets? What happened? How did they work for you long term? Why? 	<ul style="list-style-type: none"> • Instinctive Eating Cycle: Hunger is the primary reason for eating; it is a primitive yet reliable regulator of fuel intake. • Overeating Cycle: Environmental and emotional cues can trigger an urge to eat (or to continue eating) whether there is a physical need for fuel or not. • Restrictive Eating Cycle: Diets can lead to preoccupation with food and feelings of deprivation that eventually lead to rebound overeating.
<p>When? When do I feel like eating?</p>	<ul style="list-style-type: none"> • When do you feel like eating? • How can you tell when you're hungry? • How could you distract yourself from eating until you get hungry? • What could you do to cope more effectively with your emotional triggers for eating, for example: manage stress better, find a hobby, treat yourself to a hot bath, ask for help around the house. 	<ul style="list-style-type: none"> • Ask yourself, “Am I hungry?” whenever you feel like eating. (Help patients develop an internalized mechanism of knowing when to eat.) • Hunger is a physical feeling; it is not the same thing as cravings, appetite or a desire to eat. • Getting too hungry can be a trigger for overeating. • Identify and reduce environmental cues for overeating, for example putting food out of sight, avoiding areas like the break room where food is likely to be found and ordering half-portions or sharing meals. • Identify and cope with emotional triggers for overeating such as boredom, stress, sadness, anger, loneliness, celebrating, or rewarding yourself. (Refer as needed).

Decision	Possible questions to start the conversation	Bite-sized Messages
<p>What? What do I eat?</p>	<ul style="list-style-type: none"> • What do you eat in a typical day? • Do you restrict yourself from eating certain foods then later give-in and overeat those foods? • Are there any areas of your diet that you think could be improved? • What specific change(s) would you like to make? • What health issues do you need to be aware of when choosing food (h/o high cholesterol, family h/o diabetes, BMI > 25, etc.) • What kinds of beverages do you drink? • What types of food do you want to eat when you're eating for emotional reasons? • What kinds of food could you keep on hand to eat when you are hungry? 	<ul style="list-style-type: none"> • All Foods Fit: there are no "good" foods or "bad" foods. • Use balance, variety and moderation to guide your choices. www.mypyramid.gov provides a good general guide to healthful eating. <ul style="list-style-type: none"> Balance - provide your body with the necessary nutrients. Balance eating for nourishment with eating for enjoyment. Variety - eat a variety of foods from the different food groups and a variety of foods within each group. Moderation – consider overall dietary intake, not just the portion size of one particular item. • Ask yourself three questions when deciding what to eat: What do I want? What do I need? What do I have? • Make small, focused, incremental changes, for example, increasing fruits and vegetables, improving the quality of the fluids you drink, lower your saturated and trans fat intake and switching to healthier fats.
<p>How? How do I eat?</p>	<ul style="list-style-type: none"> • Do you eat while distracted, for example, watching TV, driving, working? • Do you think you eat fast? • Do you eat differently in private than you do in public? 	<ul style="list-style-type: none"> • Eat mindfully; stay aware of your body, the food and the ambience. • Minimize distraction: turn off the TV, eat while seated at a table. • Savor each bite, noticing the appearance, aromas and flavors. • Put your fork down between bites.
<p>How Much? How much do I eat?</p>	<ul style="list-style-type: none"> • How do you typically feel after eating? • How does it feel when you have eaten too much food? • What situations or emotions trigger overeating for you? • What could you do to address those triggers more effectively (for example, order less food, get up from the table, turn off the TV, etc.) 	<ul style="list-style-type: none"> • Your stomach is only about the size of your fist so it only takes about a palm-full of food to fill it. • Eating too much can cause you to feel uncomfortable and sluggish. (Help them develop an internalized mechanism of portion control.) • When you eat more than your body needs, it has no choice but to store the extra fuel. • Practice ending your meal when you are satisfied instead of stuffed.
<p>Where? Where do I invest my energy?</p>	<ul style="list-style-type: none"> • Where do you spend (or invest) the fuel you consume? • Are you physically active? • Do you limit your "screen time"? • Do you exercise? What do you like to do? • What else do you do? For example, do you like to play with your children, do you have hobbies, do you volunteer, do you like to travel? • Is there anything else you would like to do that you are not doing now? What are your goals for your relationships, your career, your life? 	<ul style="list-style-type: none"> • The food you consume provides the energy and nutrients to live, work, play and exercise. • When you eat more than you need, the excess fuel will be stored to be used for fuel later. • Increased physical activity in daily living can have a significant impact on your fuel balance. • Exercise will improve your health, increase your stamina and function, and make you feel better. • When you invest your energy in living a full, balanced life, you are less likely to use food to meet your needs, therefore breaking an Overeating and Restrictive Eating Cycle.

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Emotional Well-being

Physical activity, nutrition, and emotional well-being are **interconnected**. People who don't move their bodies enough or who aren't consuming nutritious meals often lack energy and feel down. Similarly, those who are dealing with stress, anxiety, or depression often don't have the motivation to improve their diet and physical activity; yet, doing so—especially getting more exercise—often will help them feel better. As a primary care provider, you have a clear opportunity to address emotional health both as a cause and an effect of improved nutrition and physical activity.

Physical Activity and Emotional Health

Physical activity **activates serotonin and norepinephrine**, two neurotransmitters associated with mood. Some research suggests that exercise may help synchronize these neurotransmitters, improving mood. Additionally, physical activity **stimulates the production of endorphins**, which produce feelings of well-being, provide for “natural” pain relief, and aid relaxation. Explaining these connections to patients may help them understand why you are prescribing physical activity to help them improve their mood. You will also find that patients who do increase their physical activity will report feeling better emotionally. This mood improvement is excellent **positive reinforcement** for the changes they have made.

Nutrition and Emotional Health

All people eat for emotional reasons, including celebrating, expressing love, or finding comfort in homemade cookies. Across cultures, social events often revolve around eating. Thus, emotional connections to food are part of “normal” eating. Emotional eating becomes maladaptive when it is the primary way that a person copes with emotions.

Emotional triggers for eating include boredom, stress, sadness, anger, loneliness and even happiness. Eating can be a way to comfort, avoid, numb or distract oneself from emotions. Weight problems often result and can be more difficult to resolve. People who are overweight often eat in response to environmental and emotional cues rather than in response to cues of hunger and satiety.

Sleep and Emotional Health

How well people sleep can affect their emotional well-being. Most adults need seven to eight hours of sleep each night. People tend to sleep more lightly and for shorter periods as they age. We do not adapt to getting less sleep than needed; too little sleep creates a “sleep debt” that eventually must be “repaid” (although trying to catch up on sleep later will not completely make up for the lack of sleep). About half of all people over 65 years of age have frequent sleeping problems, such as insomnia.

Sleep deprivation can be signaled by daytime drowsiness (including drowsiness during boring activities), or falling asleep within five minutes of lying down.

Getting too little sleep leaves a person drowsy and unable to concentrate the next day, and may also impair memory and physical performance. Sleep-deprivation also leads to impairments in judgment and reaction time. People who chronically suffer from a lack of sleep, either because they do not spend enough time in bed or because they have an untreated sleep disorder, are at **greater risk of developing depression**.

During deep sleep, activity is drastically reduced in parts of the brain that control emotions, decision-making processes, and social interactions. This suggests that adequate **deep sleep may help people maintain optimal emotional and social functioning** while they are awake.

People can learn tasks better when they are well rested. Further, people who experience sleep deprivation have decreased levels of leptin and increased levels of ghrelin. Leptin released into the blood signals to the brain that the body has enough to eat. Ghrelin stimulates hunger and food intake. It is hypothesized that decreased leptin levels and increased ghrelin levels stimulate a sleep deprived person to overeat.

Helping Patients Improve Their Emotional Health

People with good emotional health are aware of their thoughts, feelings and behaviors. They have learned healthy ways to cope with the stress and problems that are a normal part of life. They feel good about themselves and have healthy relationships. You can help your patients recognize their emotions and understand why they are having them. Managing emotional health involves sorting out the causes of sadness, stress and anxiety. The following are some other helpful tips you can offer patients.

People with good emotional health are aware of their feelings and behaviors and cope with stress in healthy ways.

Express feelings in appropriate ways. If feelings of stress, sadness or anxiety are causing physical problems, keeping these feelings inside can make one feel worse. Let patients know that it is okay to let loved ones know when something is bothering them. There may be times, however, that they need to ask someone outside the situation, such as a clinician, counselor or a religious advisor, for advice and support.

Live a balanced life. Help your patients understand that they don't need to obsess about the problems at work, school or home that lead to negative feelings. While they don't have to pretend to be happy, they do need to learn positive ways to deal with these negative feelings. You can suggest patients use a journal to keep track of things that make them feel happy or peaceful. They may need help finding ways to let go of some things in life that make them feel stressed and overwhelmed.

Calm your mind and body. Relaxation methods, such as meditation, are useful ways to bring emotions into balance. Meditation can take many forms, including exercising, stretching or breathing deeply.

Take care of yourself. To have good emotional health, it's important to take care of our bodies and have a regular routine for eating healthy meals, getting enough sleep and exercising.

Coping with Stress

Feelings of stress are caused by the body's instinct to defend itself. This instinct is good in emergencies, but if it goes on for too long, stress can cause physical symptoms and anxiety, fear, and tension. You can help patients better deal with stress. First, help them recognize feelings of stress. Early warning signs of stress include tension in shoulders and neck or clenching hands into fists. Second, teach patients to respond to their stress in more positive ways, such as avoiding the situations that cause stress or changing how they react to stress.

Tips for dealing with stress

- Talk with a trusted friend, family member or counselor.
- Set realistic goals at home and at work.
- Exercise regularly.
- Eat well-balanced meals.
- Get enough sleep.
- Don't worry about things you can't control, such as the weather.
- Participate in something you don't find stressful, such as sports, social events or hobbies.
- Prepare to the best of your ability for events you know may be stressful, such as a job interview.
- Try to look at change as a positive challenge, not as a threat.
- Work to resolve conflicts with other people.

Improving Sleep

Certain lifestyle choices may deprive a person of needed sleep. Patients who tell you they are having sleep troubles may be over-scheduling activities and not taking enough time for quiet relaxation. You can help patients improve their sleep by suggesting some specific changes (see box). Remember that if you are recommending an increase in physical activity, you should tell patients not to exercise just before bedtime, which makes it harder to fall asleep. Physical activity in the evening delays the extra release of melatonin at night that helps the body fall asleep. Exercise in the daytime, however, improves nighttime sleep.

Tips for a Good Night's Sleep:

Set a schedule: turn in and get up at the same time each morning. "Sleeping in" on weekends makes it harder to wake up early on Monday morning.

Be physically active: Daily physical activity helps people sleep, although a workout soon before bedtime may interfere with sleep. For maximum benefit, try to get your exercise about 3 hours before going to bed.

Avoid caffeine, nicotine, and alcohol: Caffeine, a stimulant, keeps people awake. Smokers tend to sleep very lightly and often wake up in the early morning due to nicotine withdrawal. Alcohol disrupts REM sleep and keeps people in the lighter stages of sleep.

Relax before bed: You can train yourself to associate certain restful activities with sleep and make them part of your bedtime ritual. Relaxing routines such as taking a warm bath or reading can make it easier to fall sleep.

Sleep until sunlight: If possible, wake up with the sun, or use very bright lights in the morning. Sunlight helps the body's internal biological clock reset itself each day.

Don't lie in bed awake: If you remain awake after 30 minutes, get out of bed and do something else until you feel tired.

Control your room temperature: Maintain a comfortable temperature in the bedroom. Extreme temperatures may disrupt sleep or prevent you from falling asleep.