

Weight Management



Fit & Well: Core Concepts and Labs in Physical Fitness and Wellness

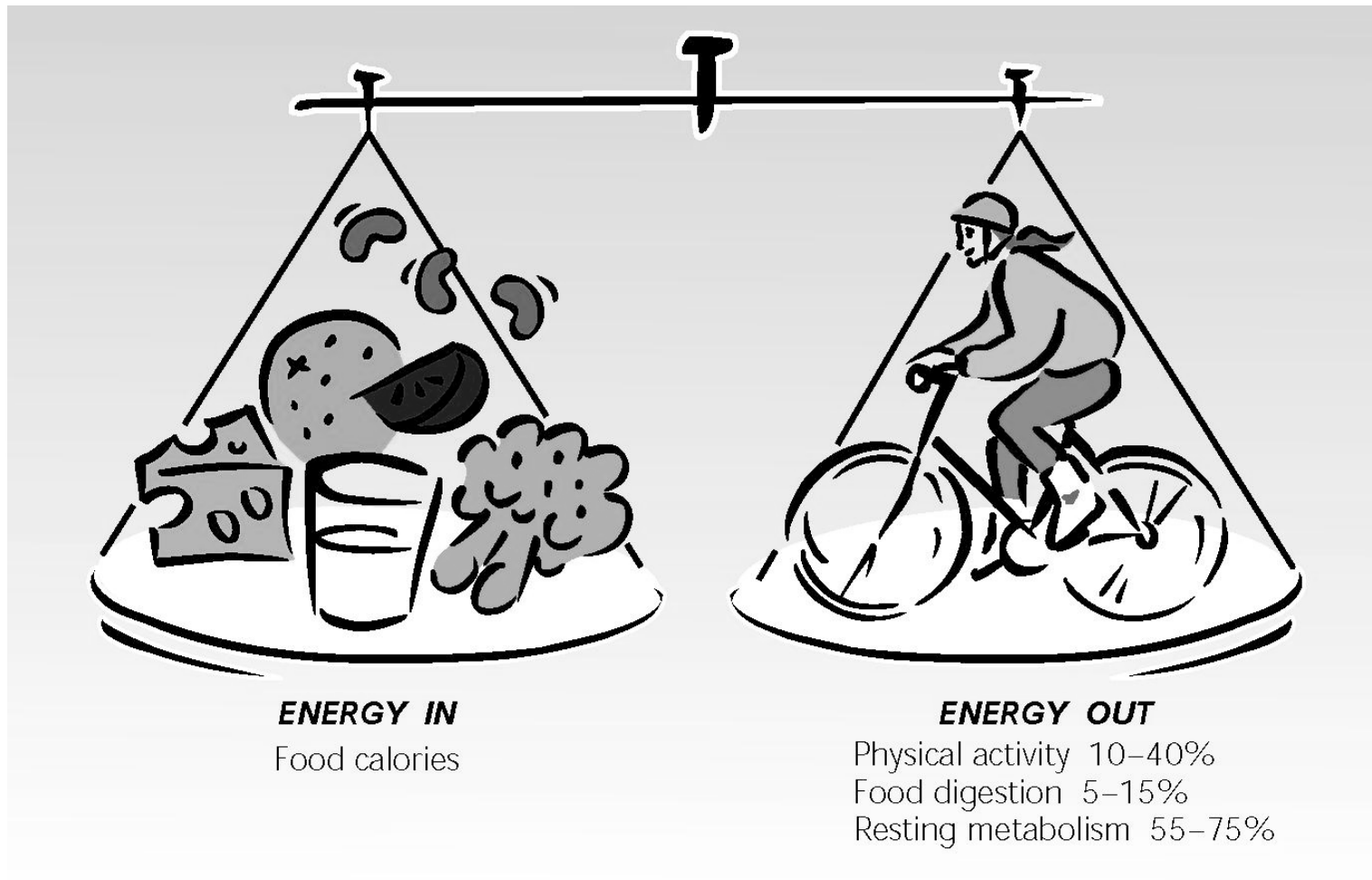
Health Risks of Excessive Fat

- Impaired cardiac function
- Hypertension, stroke, and deep vein thrombosis
- Increased insulin resistance in children and adults and type 2 diabetes (80% of these patients are overweight)
- Renal disease
- Sleep apnea
- Osteoarthritis, degenerative joint disease, gout
- Endometrial, prostate, breast, colon cancers
- Abnormal plasma lipid and lipoprotein levels
- Menstrual irregularities
- Gallbladder disease
- Enormous psychological burden and social stigmatization and discrimination

**From a public health standpoint,
obesity poses a significant societal
burden**

**Almost 60 billion dollars is
spent annually related to
adverse health
consequences of obesity**

Energy-Balance Equation



Fit & Well: Core Concepts and Labs in Physical Fitness and Wellness, Chapter 9

Activity Level and Risk of Obesity

Data from Hu, F. B., et al. 2003. Television watching and other sedentary behaviors in relation to risk of obesity and type 2 diabetes mellitus in women. *Journal of the American Medical Association* 289(14): 1785–1791.

Adopting a Healthy Lifestyle for Successful Weight Management

- Diet and eating habits
- Physical activity and exercise
- Thoughts and emotions
- Coping strategies

Diet and Eating Habits

- *Total calories*—choose an appropriate energy intake for your activity level
- *Portion sizes*—limit portions to those recommended by the Food Guide Pyramid to help keep energy intake moderate; measure portions at home and read food labels
- *Energy (calorie) density*—choose foods with a low energy density, meaning those that are relatively heavy but have few calories

Diet and Eating Habits

- *Fat calories*—keep fat intake moderate, and limit intake of saturated and trans fats
- *Carbohydrate*—emphasize whole grains, vegetables, fruits, and other high-fiber foods; limit consumption of foods high in refined carbohydrates, added sugars, and easily digestible starch
- *Protein*—meet recommended intake of 10–35% of total daily calories
- *Eating habits*—eat meals and snacks on a regular schedule

Physical Activity and Exercise

- Physical activity—increase daily physical activity to at least 30 minutes per day; to lose weight or maintain weight loss, 60 or more minutes per day is recommended
- Exercise
 - ▶ Endurance exercise burns calories
 - ▶ Strength training builds muscle mass, which can increase metabolic rate

Thoughts and Emotions

- How you think about yourself and your environment
- Realistic self-talk, beliefs, and goals can be positively motivating

Coping Strategies

- Some people cope with stress by overeating
- Analyze your eating habits to determine if you are using food appropriately
- Develop adequate and appropriate strategies for dealing with stress

Approaches to Overcoming a Weight Problem

- Doing it yourself
- Diet books
- Dietary supplements and diet aids
- Weight-loss programs
- Prescription drugs
- Surgery
- Psychological help

Doing It Yourself

- Don't try to lose more than 0.5–2 pounds per week
- Combine any cuts in calorie intake with physical activity
- Choose lifestyle strategies that you can maintain over the long term

Diet Books

- Reject books that
 - ▶ Advocate unbalanced ways of eating
 - ▶ Claim to be based on a secret
 - ▶ Use gimmicks
 - ▶ Promise quick weight loss
 - ▶ Limit the selection of foods
- Accept books that advocate a balanced diet plus exercise

Low-Carb and Low-Fat Diets

- Any diet that cuts calories causes weight loss
- Low-carbohydrate diets have not been proven safe over the long-term
- Low-fat diets should focus on nutrient dense foods, especially whole-grains, fruits, and vegetables
- Diets with many restrictions have high drop-out rates
- People who have been successful at long-term weight loss track food intake and engage in 60 or more minutes of physical activity per day

Dietary Supplements and Diet Aids

- Dietary supplements are subject to fewer regulations than over-the-counter medications; they have not been proven safe and effective
- FTC: More than half of advertisements for weight-loss products make representations that are likely to be false

Weight-Loss Programs

- Noncommercial weight-loss programs
- Commercial weight-loss programs
 - ▶ Partnership for Healthy Weight Management
- Online weight-loss programs
- Clinical weight-loss programs

Prescription Drugs

- Appetite suppressants include phentermine, diethylpropion, and sibutramine
- Orlistat is a drug that blocks fat absorption
- Prescription weight-loss drugs cause moderate weight loss, but all have risks and side effects
- Prescription weight-loss drugs are recommended only for people who have a BMI over 30 and who have been unable to lose weight with lifestyle changes

Surgery

- Surgical intervention may be recommended for some people who have a BMI of 40 or higher or who are 100 or more pounds overweight
- Gastric bypass surgery works by creating a small stomach pouch that restricts the amount of food that can be eaten
- Surgery has a high rate of complications

Psychological Help

- When concerns about body weight and shape become severe, professional help is recommended

Body Image

- Body image = the mental representation a person holds about her or his body
- It consists of perceptions, images, thoughts, attitudes, and emotions
- Media images are linked to negative body image
- Different cultures have different ideas of the “ideal” body type

BMI of Miss America Pageant Winners

The data shows a steady decline in winners' BMI from a range of 20–25 in the 1920s to below 18.5, considered undernutrition by WHO and represented by the horizontal line.

SOURCE: Rubinstein, S., and B. Caballero. 2000. Is Miss America an undernourished role model? *Journal of American Medical Association* 283(21): 1569. Used with permission from the American Medical Association.

Severe Body Image Problems

- Poor body image can cause psychological distress
- Body dysmorphic disorder (BDD)
 - ▶ Related to obsessive-compulsive disorder
 - ▶ Can lead to depression, social phobia, and suicide
 - ▶ Treatment—medication and psychotherapy
- Muscle dysmorphia = a disorder characterized by distorted body image; affected people inaccurately perceive themselves as small, with underdeveloped muscles

Acceptance and Change

- Most Americans are unhappy with some aspect of their appearance
- Recognize the limits of change
- Small amounts of weight loss can significantly reduce health risks

Eating Disorders

- Eating disorder = a serious disturbance in eating pattern or behavior, characterized by a negative body image and concerns about body weight or body fat
- Major types
 - ▶ Anorexia nervosa
 - ▶ Bulimia nervosa
 - ▶ Binge-eating disorder

Eating Disorders

- Anorexia nervosa = an eating disorder characterized by a refusal to maintain body weight at a minimally healthy level and an intense fear of gaining weight or becoming fat
 - ▶ Affects 1–3 million Americans, 95% female
 - ▶ Distorted body image
 - ▶ Severe medical complications, including death

Eating Disorders

- Bulimia nervosa = an eating disorder characterized by recurrent episodes of binge eating and purging: overeating and then using compensatory behaviors such as vomiting and excessive exercise to prevent weight gain
 - ▶ Begins in adolescence or young adulthood
 - ▶ During a binge, a person may consume 1,000 to 60,000 calories
 - ▶ Binge-purge cycle places tremendous stress on the body

Eating Disorders

- Binge-eating disorder = an eating disorder characterized by binge eating and a lack of control over eating behavior in general
- Eating patterns:
 - ▶ Eating very rapidly
 - ▶ Eating until uncomfortably full
 - ▶ Eating when not hungry
 - ▶ Eating alone
- Feelings of guilt, shame, and depression

Treating Eating Disorders

- Must address both problematic eating behaviors and the misuse of food to manage stress and emotions
- Averting a medical crisis
- Dealing with psychological aspects
- Stabilizing eating habits
- Changing behavior patterns and thoughts
- Possibly involving medication and/or hospitalization

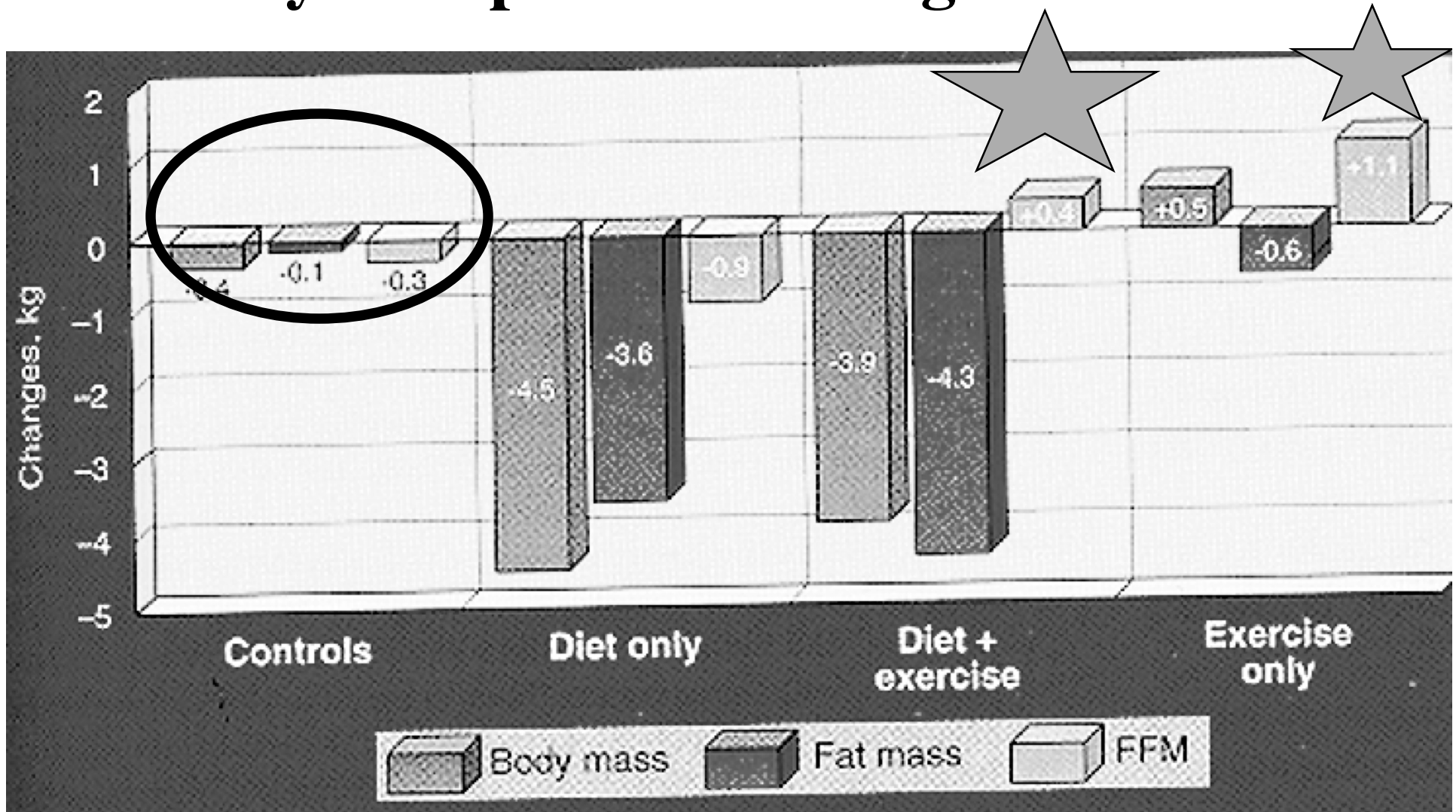
Creating an Individual Weight-Management Plan

- Assess your motivation and commitment
- Set reasonable goals
- Assess your current energy balance
 - ▶ To lose one pound, you must create a negative energy balance of 3500 calories
 - To lose 1/2 pound per week requires a negative daily energy balance of 250 calories
 - To lose 2 pounds per week requires a negative daily energy balance of 1000 calories
 - ▶ Energy balance is affected by food intake and energy output



Energy Balance

Effects of Diet, Exercise, and Diet+Exercise on Body Composition Changes in Women



Creating an Individual Weight-Management Plan

- Increase your level of physical activity—exercise habits are critical for long-term success
- Make changes in your diet and eating habits
- Put your plan into action
 - ▶ Write daily
 - ▶ Get others to help
 - ▶ Think positively