

## SESSION 8

# THE HIGH-ENERGY BODY: BURN FAT THROUGH NON- STRENUOUS EXERCISE

### OBJECTIVES

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- *Describe the impact of moderate-intensity exercise on: resting metabolic rate; lean body mass; fat burning enzymes; body chemistry; and mood state.*
- *Using the diagram of muscle tissue and fat cells, state the relationship between muscle mass, fat burning enzymes and the body's ability to burn fat.*
- *Describe the difference between regularly scheduled moderate-intensity exercise and intermittent high-intensity exercise as it relates to your body's ability to burn fat.*
- *Using a heart rate guideline table, determine the proper level of exercise intensity for your age and level of conditioning.*

### BACKGROUND

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Exercise is essential to lower your fat thermostat and avoid excessive weight gain. Exercise increases your metabolic rate, your muscle mass, and the enzymes in your body that help burn fat. When we use the word “exercise,” we’re talking about natural, smooth, rhythmic physical activity.

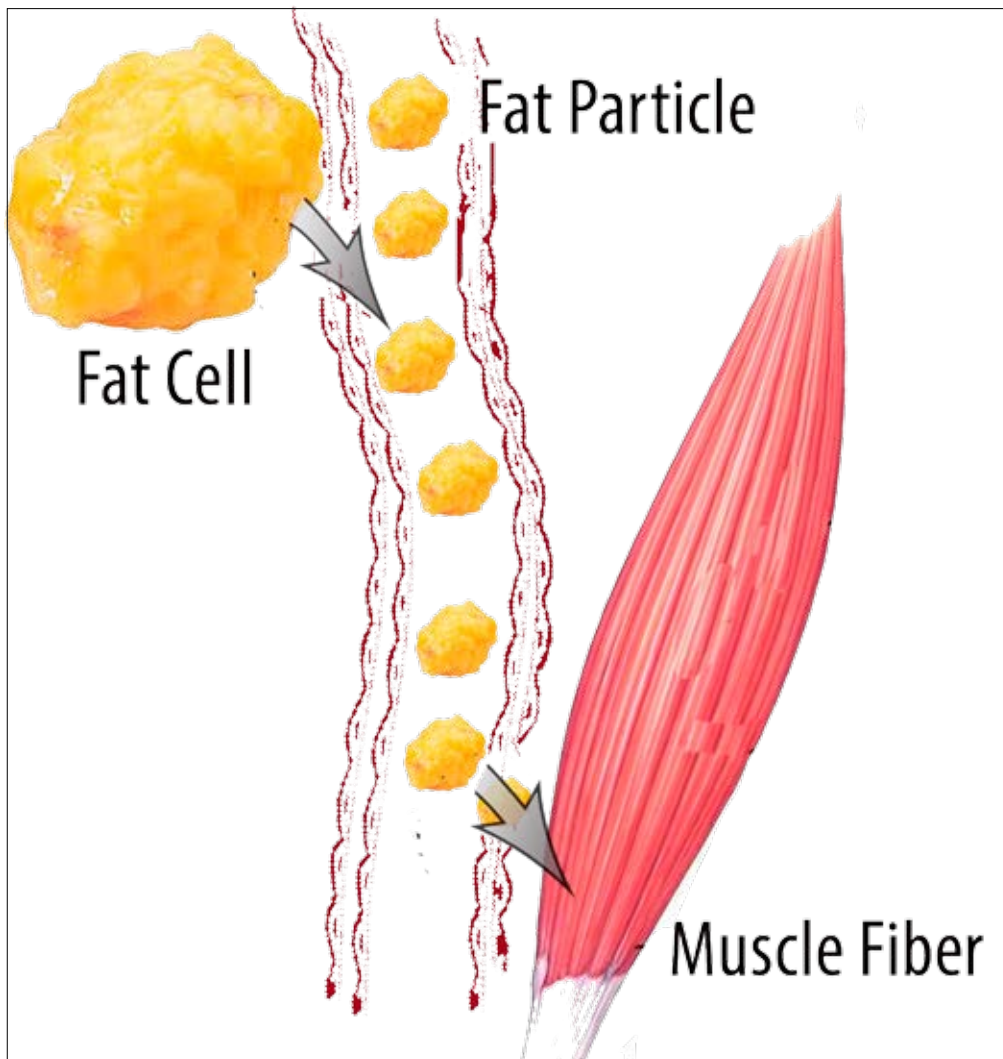
As you learned in this program, low calorie diets may have the serious detrimental effect of loss of fat-burning lean muscle tissue. Exercise will increase the lean muscle tissue, and muscle tissue burns fat.

Both carbohydrates and proteins can be changed to fat and stored. However, fat cannot be changed to any other product. The only way fat can be removed from your fat cells is to be burned as energy in your muscles.

Remember, your destiny is to be lean. Our ancestors were lean and active because they had to be to survive. Unlike most of us they ate to live whereas many of us live to eat. We are a fat society because of our sedentary lifestyle and foods full of fat, sugar and salt, not because of genetics.

Here is an illustration of the “Journey of Fat” in the body. Trace the progress of a fat particle and fat cell.

## JOURNEY OF FAT



Regular activity three or more times per week stimulates production of fat-burning enzymes. For weight control the best program is a moderate level of intensity sustained for 30 minutes to one hour. Your heart rate will be your best guide and you will hear more about it and learn to measure it in this session.

To be successful in burning fat, you must use many of the large muscles in activities that mimic the physical activities of our early paleolithic ancestors —walking, running, jumping, climbing, bending, pushing and pulling. The most effective activities are walking, jogging, swimming, jumping rope, bicycle riding, aerobic dancing, trampoline, hiking, cross-country skiing and similar total body exercises.

While engaged in these types of activities your brain secretes small morphine-like chemicals called endorphines. These endorphines make you feel good and resist depression. At the same time, you're developing muscle—fat burning tissue.

Go on to the Practice section now.

## **PRACTICE**

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1. Listen to/read Session IV, "The High Energy Body: How to Build Your Fat Burning Furnace Through Non-Strenuous Exercise."

2. As you listen to the narrator and/or read, use the space provided to make notes on the impact of moderate-intensity exercise on your body's ability to burn fat.

Type of Exercise: \_\_\_\_\_

\_\_\_\_\_

Intensity of Exercise: \_\_\_\_\_

\_\_\_\_\_

Rhythm of Exercise: \_\_\_\_\_

\_\_\_\_\_

Duration of Exercise: \_\_\_\_\_

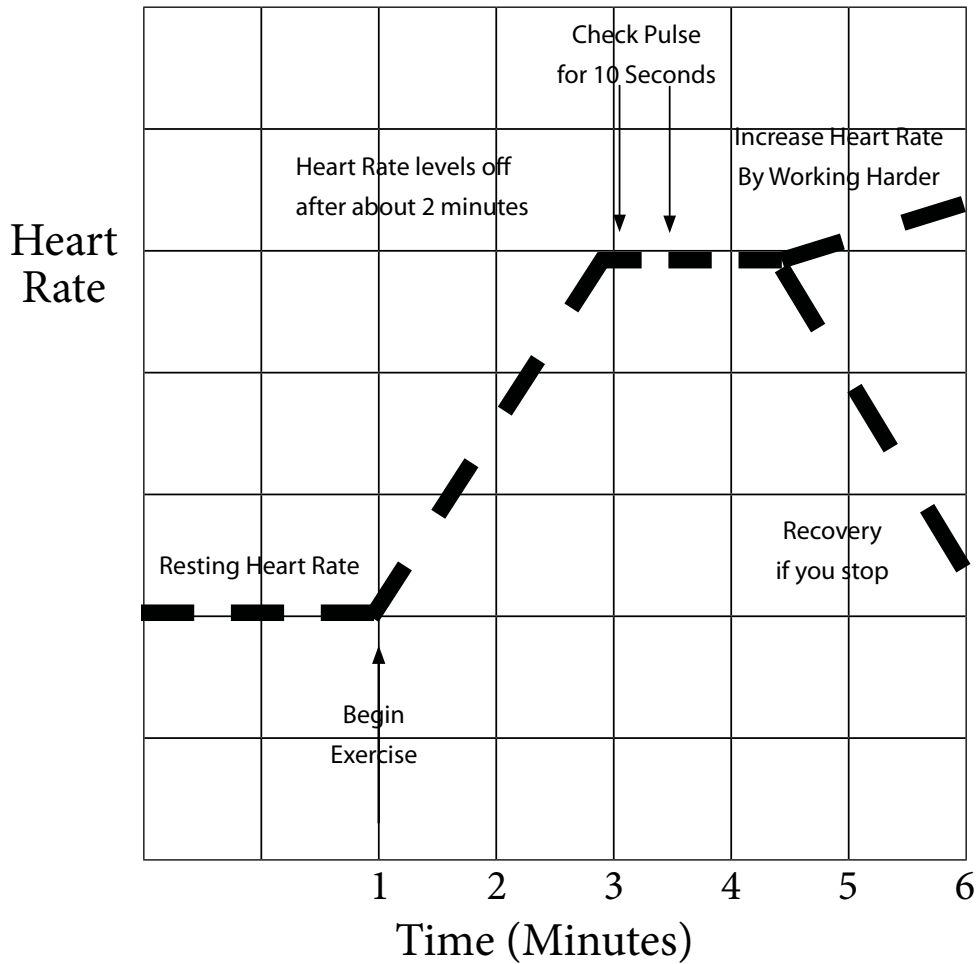
\_\_\_\_\_

Frequency of Exercise: \_\_\_\_\_

\_\_\_\_\_

The following charts are referenced by the narrator. Study each when you are instructed to do so.

## How Your Heart Rate Responds to Exercise 10-Second Pulse Count



<b>10 Second Heart Rate Guideline</b>		
Age	(for people who have not exercised much— 70% of maximum)	(for people who have exercised for a while— 80% of maximum)
20	23	27
30	22	25
40	21	24
50	20	23
60	19	21
70	17	20

3. When walking to lose weight, you need to maintain a pace that keeps you in the heart rate range recommended for your age and physical condition. How do you determine your heart rate as you exercise? You can use a digital watch such as FitBit or you can use the following three-step system.

### HOW TO DETERMINE YOUR WALKING PACE

1. Walk for a week at your recommended heart rate as defined by the charts on page 44. You should be able to carry on a normal conversation while you are walking. If you're too winded to talk, you're going too fast for your current condition.
2. On day one of your second week, walk at your normal pace. After about 15 minutes of walking, count how many steps you take in a minute. This number will be your target walking pace.
3. After three or four weeks your conditioning will improve. You should re-check your steps per minute at this interval to establish your new pace. Most people will improve three to four steps per minute every three to four weeks.

### POINTS TO REMEMBER

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- **Type of Activity**—The desired metabolic and enzymatic changes are more likely to occur with large-muscle rhythmic activity, such as walking, jogging, swimming, etc.
- **Intensity**—Moderate-intensity activity stimulates the use of fats and increases the muscular changes that aid the fat-burning process.
- **Rhythm**—Establishes a reference cadence that quickens normal pattern of daily movement.
- **Duration**—The ideal duration is about an hour a day. Beginners should start with 20 minutes a day and gradually increase the duration by 5 minutes each week.
- **Frequency**—The basic rule is to exercise regularly. Three times a week or every other day may be fine for you. Daily exercise is ideal and recommended.

## PROGRESS CHECK

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Now describe in your own words the impact of moderate-intensity exercise on your:

Fat thermostat: \_\_\_\_\_

\_\_\_\_\_

Resting metabolic rate: \_\_\_\_\_

\_\_\_\_\_

Lean body mass: \_\_\_\_\_

\_\_\_\_\_

Fat burning enzymes: \_\_\_\_\_

\_\_\_\_\_

Body chemistry: \_\_\_\_\_

\_\_\_\_\_

Mood state: \_\_\_\_\_

\_\_\_\_\_

Look at the Illustration in the Background section, "Journey of Fat." State briefly how your muscle mass and fat burning enzymes effect your body's fat burning capability.

\_\_\_\_\_

\_\_\_\_\_

How does the frequency and duration of movement affect fat burning muscle?

\_\_\_\_\_

\_\_\_\_\_

How does your heart rate determine your level of exercise intensity?

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Compare your responses to the notes you made while listening to the audio and to the Points to Remember.

In the Session VIII audio you'll find 60 minutes of specially composed walking music. This music was designed for people of all levels of fitness to create a motivational climate for daily exercise. As you walk, you step in pace with the music. This ensures that you maintain a steady and continuous exercise pace during your entire walking workout.

### **Download Walking Music From iTunes**

iTunes by Apple has hundreds of musical selections for walking, running and other forms of exercise. There's specialty walking music from the hits of the fifties, sixties, seventies and eighties. There's bosa nova, blues, jazz, hip hop music composed especially for walking. Whatever your taste in music there's walking music for you.

Beside helping you keep a steady pace listening to walking music seems to make the time go by faster.

You can download this music into your iPhone (smartphone) and listen to it while you exercise.