

## SETTING THE FLOOR OF THE FAT-BURNING RANGE

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Ambient heart rate: \_\_\_\_\_

Fat, as a source of fuel, burns (or metabolizes) in every zone. However, because fat burns only in the presence of oxygen, the range of heartbeats in which you have plenty of oxygen available—and can readily metabolize fat—is called the fat-burning range.

Just like zones, the fat-burning range has a top (ceiling) and a bottom (floor). Every person's fat-burning range is unique, marked by two metabolic thresholds:

- Floor: This percentage is the same for everybody (55 percent of MHR).
- Ceiling: This is your anaerobic threshold heart rate, and it varies based on how fit you are; the closer your anaerobic threshold is to your MHR, the fitter you are.

If you train between these two heart rate thresholds, you will burn a considerable amount of your total workout calories as fat and increase your fat-burning capacity.

The purpose of this activity is to determine the floor of your fat-burning range. (In a later activity, you will determine the ceiling.) To find the floor of your fat-burning range, you first need to estimate your MHR. You do this by running twice around a track with a recovery period between laps. Note your highest heart rate after each run, usually toward the end of the run. The highest heart rate value you see on your monitor is today's estimated MHR. If you determine after finishing this activity that you could have gone harder (i.e., run faster) and increased your heart rate further, add 5 to 10 bpm to your MHR number.

### ***Instructions***

1. Warm up adequately, for at least five minutes or 10 percent of your total exercise time. Your heart rate should be 30+ bpm above your ambient heart rate toward the end of your warm-up.
2. Your class will be divided into four groups that start at various markers around the track.
3. At the signal to start, begin to run. Every 15 seconds, increase your speed so that your heart rate increases an average of 5 bpm. At the end of the run, record your highest heart rate.
4. Repeat step 3 after a two- to five-minute active (walking) rest.
5. Use the higher heart rate value of the two runs as your general fitness MHR.

6. Calculate the floor of your fat-burning range by multiplying your MHR by 55 percent ( $\text{MHR} \times 0.55$ ).

$$\begin{aligned} & (\text{MHR}) \underline{\hspace{2cm}} \times 0.55 \\ & = \underline{\hspace{2cm}} \text{ bpm (floor of fat-burning range)} \end{aligned}$$

### **Questions**

Why is it important to know the floor of your fat-burning range?

Does everyone have the same heart rate number for the fat-burning ceiling and floor? Why or why not?

What would make the floor of your fat-burning range change?

How can you change the ceiling of your fat-burning range?