Chapter 7: Cardiovascular Fitness

Lesson 7.2: Building Cardiovascular Fitness

Taking Charge: Learning to Self-Monitor
Lesson 7.2: Building Cardiovascular Fitness

Lesson Objectives:

• Explain the difference between aerobic activity and anaerobic activity.
• Describe the FIT formula for developing cardiovascular fitness.
• Explain how to determine a threshold of training and a target zone for building cardiovascular fitness using two different heart rate methods.
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Question

What does the term *aerobic fitness* mean?
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Answer

• Aerobic means “with oxygen.”
• Aerobic exercise means exercise you can sustain for long periods of time.
• Aerobic fitness is the same thing as cardiovascular fitness.
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Question

What is active aerobics, and what advantage do vigorous activities have over more moderate-intensity activity?
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Answer

- Active aerobics are aerobic activities done in the target zone for cardiovascular fitness.
- Vigorous activities put more stress on the cardiovascular system.
- This will produce greater changes in cardiovascular fitness.
- Vigorous activities produce a higher caloric expenditure.
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Question

What are the specific national vigorous activity recommendations for teenagers?
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Answer

• A minimum of 3 times a week.
• You should be active for 20 minutes each time.
• For best results you should be active 5 or 6 days a week for up to 60 minutes per day.
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Question

How many days’ rest is needed between vigorous activity sessions?
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Answer

One or two days’ rest each week is needed to avoid:

- overtraining
- injuries
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Question

What are the two methods used to determine your training heart rate?
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Answer

• The first is called the heart rate range (HRR) method. This formula uses the range between your resting and maximal heart rates for calculation.
### Lesson 7.2 – Building Cardiovascular Fitness

**Answer (continued)**

**Table 7.6**

**Calculating Heart Rate Target Zone (HRR Method)**

<table>
<thead>
<tr>
<th>Threshold HR</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>(maxHR)*</th>
<th>(resting HR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>197</td>
<td>- 67</td>
<td>1.30</td>
<td>(HRR)</td>
<td>(threshold %)</td>
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<tr>
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<td>130</td>
<td>x .50</td>
<td>65</td>
<td>(resting HR)</td>
<td>(threshold HR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+ 67</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.32</td>
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<table>
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<th>Target ceiling rate</th>
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<th>Step 2</th>
<th>Step 3</th>
<th>(maxHR)*</th>
<th>(resting HR)</th>
</tr>
</thead>
<tbody>
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<td>- 67</td>
<td>130</td>
<td>(HRR)</td>
<td>(target ceiling %)</td>
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<tr>
<td></td>
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<td>x .85</td>
<td>111</td>
<td>(resting HR)</td>
<td>(target ceiling rate)</td>
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<td>+ 67</td>
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<td></td>
<td></td>
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<td>178</td>
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</tbody>
</table>

| Target HR zone      | 132-178 beats/min |
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Answer (continued)

- The second method is called the percent of maximal heart rate (\% \text{maxHR}) method.

<table>
<thead>
<tr>
<th>Table 7.7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calculating Heart Rate Target Zone</strong></td>
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<td>(% maxHR Method)</td>
</tr>
<tr>
<td>Threshold HR</td>
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<td></td>
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<tr>
<td>Target ceiling rate</td>
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<td></td>
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<tr>
<td>Target HR zone</td>
</tr>
</tbody>
</table>
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Question

What are examples of anaerobic activities?
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Answer

- Sprinting, which is characterized by short bursts of intense effort.
- Weight training is often anaerobic when the number of repetitions in a set are around 10 or fewer and the resistance is high.
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Question

What happens when you exercise anaerobically (without oxygen)?
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Answer

You fatigue reasonably quickly due to the buildup of lactic acid in the muscles (30-40 seconds).
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Question

Why is anaerobic fitness important?
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Answer

• Anaerobic fitness is important for performance in many sports.
• Such sports include basketball, soccer, lacrosse, gymnastics, and football.
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Question

What prescription should someone follow who wants to do anaerobic activity?
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Answer

• They should do short bursts of vigorous exercise for less than 30 seconds.
• Recoveries should be between 30 seconds and 3 minutes.
• The more intense the repetition, the shorter the repetition should be.
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Question

What is the purpose of an activity log?
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Answer

To help you monitor your performance and progress toward your fitness goals.
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Question

How can you use an activity log or diary to self-monitor your own physical activity?
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Answer

• You can write down the amount of activity you do each day.
• This should include the frequency, length of time, and intensity of the activities.
Taking Charge: Learning to Self-Monitor

Read about Mark and Erica in the Taking Charge section of chapter 7 (page 112).

- How did the logs help both Mark and Erica?
- What are some other ways in which a log could help people?
- What are some good suggestions that can help people keep up with their activity log?
Taking Charge: Learning to Self-Monitor

- Set a one-week physical activity goal for yourself.
- Use the weekly log to keep track of how well you meet your goal.