Exercise Considerations for Individuals with Cardiovascular Disease

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Cardiovascular Disease

Definition: Heart conditions that include diseased vessels, structural problems or blood clots

- Heart Attack
- Hypertension
- Coronary Artery Disease
- Peripheral Arterial Disease
- Heart Failure
General Exercise Benefits for Individuals with Cardiovascular Conditions

RESISTANCE EXERCISE

- Until 10-15 years ago, it was forbidden for cardiac patients in general! Now we know...
  - Muscle strength is an independent predictor for mortality in patients
  - Muscle strength is associated with the capacity to perform activities of daily living and quality of life

AEROBIC EXERCISE

- Aerobic capacity is also an independent predictor for mortality
- Most intensities of exercise are SAFE and recommended
Screening forms are a good tool (to be used by qualified professionals) to help you discuss a person’s needs.

General Principle 1: Understand Your Clients

Get to know who you are working with so you know better how to help them and when to refer them on.

Common Symptoms

- Fatigue
- Strength losses
- Shortness of breath
- Swelling (oedema)
- Exercise intolerance
- Rapid weight gain

The goal is to help people exercise safely, not to prevent them from doing it.

Screening forms are a good tool (to be used by qualified professionals) to help you discuss a person’s needs.
General Principle 2: Help Monitor Intensity

- There is no one way to monitor intensity.
- But giving people a “scale” to think about can help them understand their intensity and help them stay safe.

<table>
<thead>
<tr>
<th>Effort</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>6</td>
<td>Least effort</td>
</tr>
<tr>
<td>7</td>
<td>very, very light</td>
</tr>
<tr>
<td>8</td>
<td>light</td>
</tr>
<tr>
<td>9</td>
<td>very light</td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>fairly light</td>
</tr>
<tr>
<td>12</td>
<td>ENDURANCE TRAINING ZONE</td>
</tr>
<tr>
<td>13</td>
<td>somewhat hard</td>
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<tr>
<td>14</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>hard</td>
</tr>
<tr>
<td>16</td>
<td>STRENGTH TRAINING ZONE</td>
</tr>
<tr>
<td>17</td>
<td>very hard</td>
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<tr>
<td>18</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>very, very hard</td>
</tr>
<tr>
<td>20</td>
<td>Maximum</td>
</tr>
</tbody>
</table>

Looking good. Skeletal Muscle. The exercise seems to be too light.

EVERY MOMENT IS AGONY!

Help me!
General Principle 3: Encourage normal breathing during Resistance Exercise
General Principle 3: Longer Warm-up and Cool Down

“If you haven’t exercised in a while, you may need to stretch and warm up before you stretch and warm up.”
Disease Specific Considerations
Hypertension: High Blood Pressure

Definition: A systolic blood pressure over 129mmHg and/or a diastolic pressure over 79mmHg.

“Regular aerobic exercise has been shown to lower daytime systolic and diastolic blood pressure by up to 3.2mmHg and 2.7mmHg respectively…” (1)


Exercise DO’s:
- Aerobic programming is essential
- Exercising at lower intensities appears to lower BP as much and sometimes more than high intensities (2)

Exercise Considerations:
- Avoid Isometric resistance exercise (where they push against a force with no movement)
- Minimize positional changes (getting up and down)
Coronary Artery Disease

Definition: A disease that obstructs blood supply, oxygen and nutrients from the heart (can lead to a heart attack)

Exercise DO’s:
- Longer warm up and cool down (≥ 10 min)
- Low intensity aerobic activities

Exercise Considerations:
- Individuals are often on blood thinners-risk of bleeding
- Any chest pain-STOP
- They need to be able to identify their own symptoms
Heart Failure

Definition: Heart Failure is a cardiac disorder where the heart is unable to pump blood required to meet the body’s metabolic needs.

Exercise DO’s:
- ANY kind of exercise is better than nothing
- Work within “safe” ranges (GP prescribed)
- Low level resistance training is safe as short as 3 weeks post heart attack (with stable status)

Exercise Considerations:
- They need to be able to identify their own symptoms

Take Home Messages

- We are actively working to remove barriers so more people can participate in exercise.
- Exercise is safe for most individuals, especially when they know how to self-monitor.
- Get to know your clients/members/class attendees and help them self-monitor when possible.
- Know your limits and refer on if any issues arise!

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