

Name: \_\_\_\_\_

### ***Strength Training Principles (10 points)***

*Directions: Please read the following article and answer the questions completely in the space provided on the back of this sheet. Each question is worth 2 points.*

Almost any form of exercise will stimulate some degree of strength and muscle development. Here are the very important principles and guidelines of a safe and effective strength training program.

#### **Warming Up and Stretching**

Warming-up promotes safety, prevents injury, and increases performance. You should warm up with the purpose of creating blood flow throughout the body and thus preparing your muscles for the workout. First, before beginning your weightlifting session, do some form of cardiovascular exercise at a light, comfortable intensity for about five to ten minutes. Walking or riding a bicycle works well. When you've completed your warm-up, be sure to stretch the primary muscles you've been using. Stretching provides better physical performance, prevents debilitating injuries, and makes you look and feel better by improving your posture.

#### **Importance of Blood Supply to your Muscles**

It is important to understand the value and purpose of targeting or forcing blood to the muscles you are training. When you use proper lifting technique, you will notice blood racing to the specific muscle you are training. When blood is forced into your muscles during your weightlifting program it increases the "microtrauma" or tiny little tears in your muscles. When this happens, your muscle tissues repair and rebuild themselves bigger and stronger than they were--if you allow ample resting time.

#### **Lifting Speed**

One of the most important elements in weightlifting--one that has a big effect on how much blood is targeted to your muscles--is lifting speed. There are two parts to each exercise, a positive phase and negative phase. The "positive" phase of the repetition is the part where the muscle is actually doing the work, such as the lifting motion of the bicep curl. The "negative" phase of the repetition is the part with resistance, because you are returning the weight from the end of the positive phase back to the beginning. So coming back slowly with resistance on every negative phase of the exercise is very, very important because this is the phase that promotes blood flow to your muscles.

#### **Form/Technique**

The most common and critical training mistakes may be those of exercise technique and form. The tendency to use too much weight typically results in poor form, which decreases your ability to get results, and increases the risk of injury. These mistakes will not send the blood you need into your muscles.

### **Exercise Selection**

It is very important to select at least one exercise for each major muscle group to promote well-balanced muscle development.

### **Avoid Over Training**

Many people make the mistake of doing too many sets per exercise, and/or doing too many exercises per muscle group. It's very common for people who want great muscle size and strength gains to simply do too much for each muscle group and over train to the point where they do more harm than good.

***Each question is worth 2 points***

1. What is the purpose of warming up and stretching before you start weightlifting?

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2. What happens when blood is forced into your muscles while weightlifting?

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3. Explain what is the “positive” phase and “negative” phase of an exercise?

“Positive”:

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“Negative”:

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4. What is the result of bad form/technique?

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5. Why is it important to select one exercise for each muscle group?

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