Here are some facts from the American Heart Association, the American Cancer Society, and the Surgeon General that might be helpful when attempting to sell a personal training package to a new client.

**American Heart Association (AHA)**

**Physical Activity and Cardiovascular Health Fact Sheet**

- Cardiovascular disease (CVD) is the number one killer in America. About 954,000 Americans died of CVD in 2013, accounting for over 42 percent of all deaths.
- Lack of physical activity has now clearly been shown to be a significant risk factor for heart disease.
- Scientists have not found a direct link between regular exercise and stroke, but they have found that exercise reduces the risk of other health problems (such as heart disease) that can contribute to stroke. By helping to prevent heart attack, exercise may reduce the risk of some kinds of embolic stroke.
- An estimated 250,000 deaths per year in the US—about 12 percent of total deaths—can be traced back to a lack of regular physical activity.
- The relative risk of coronary heart disease associated with physical inactivity ranges from 1.5 to 2.4, an increase in risk comparable with that associated with high cholesterol, high blood pressure, and cigarette smoking.
- Less active, less fit persons have a 30-50 percent greater risk of developing high blood pressure.
- Participation in regular physical activity gradually increased during the 1960s, 70s and early 80s, but seems to have leveled off in recent years.
- Surveys have shown that 24 percent of Americans age 18 or older are not active at all. 54 percent of adults get some exercise, but they don't do it regularly or intensely enough to protect their hearts. Only 22 percent of American adults get enough leisure time exercise to achieve cardiovascular fitness.
- Of people age 55 and older, 38 percent report essentially sedentary lifestyles.
The Benefits of Daily Physical Activity

- Reduces the risk of heart disease by improving blood circulation throughout the body.
- Keeps body weight under control.
- Improves blood cholesterol levels.
- Prevents and manages high blood pressure.
- Prevents bone loss.
- Boosts energy level.
- Helps manage stress.
- Releases tension.
- Improves self-image.
- Counters anxiety and depression, and increases enthusiasm and optimism.
- Increases muscle strength, giving greater capacity for other physical activities.
- Provides a way to share in activity with family and friends.
- Establishes heart-healthy food habits in children and counters the conditions (obesity, high blood pressure, poor cholesterol levels, poor lifestyle habits, etc.) that lead to heart attack and stroke later in life.
- In older people, helps delay or prevent chronic illnesses and diseases associated with aging and maintains quality of life and independence longer.

AHA Scientific Position

Physical inactivity has been established as a major risk for the development of coronary artery disease. It also contributes to other risk factors, including obesity, high blood pressure, and a low level of HDL cholesterol. Even moderate intensity physical activity such as brisk walking is beneficial when done regularly for a total of 30 minutes or longer on most days.

Importance of Exercise or Physical Activity

Regular aerobic physical activity increases a person’s capacity for exercise. It also plays a role in both primary and secondary prevention of cardiovascular disease. There is a relationship between physical inactivity and cardiovascular mortality.

Exercise can help control blood lipid abnormalities, diabetes, and obesity. Aerobic exercise also has an independent, modest effect on lowering blood pressure for certain groups of people with high blood pressure.

The results of pooled studies have shown that persons who modify their behavior after heart attack to include regular exercise have better rates of survival. Healthy persons as well as many patients with cardiovascular disease can improve their exercise performance with training.

- Do moderately intense cardio 30 minutes a day, five days a week
  or
- Do vigorously intense cardio 20 minutes a day, 3 days a week and 8 to 10 strength-training exercises, 8 to 12 repetitions of each exercise twice a week.

Moderate-intensity physical activity means working hard enough to raise your heart rate and break a sweat while still being able to carry on a conversation. It should be noted that to lose weight or maintain weight loss, 60 to 90 minutes of physical activity may be necessary. The 30-minute recommendation is for the average healthy adult to maintain health and reduce the risk of chronic disease.

How Physical Activity or Exercise Helps Condition the Body

- Some activities improve flexibility, build muscular strength, and/or increase endurance.
- Some forms of continuous activities involve using the large muscles in your arms or legs, called aerobic exercise. These specifically benefit the heart because they make it work more efficiently during exercise and at rest.
- Brisk walking, jumping rope, jogging, bicycling, cross-country skiing, and dancing are examples of aerobic exercises that increase one’s endurance capacity.

Reduced Risk Factors

Exercise can also help reduce or eliminate some of these risk factors:
• High Blood Pressure.
• Cigarette Smoking: Smokers who exercise vigorously and regularly are more likely to cut down or stop cigarette smoking.
• Diabetes: People at their ideal weight are much less likely to develop diabetes. Exercise may also decrease a diabetic’s insulin requirements.
• Obesity and Overweight.
• Low Levels of HDL: Low levels of HDL (one of the cholesterol-carrying proteins in the blood) have been linked to an increased risk of coronary artery disease. Recent studies have shown that regular physical activity significantly increases HDL levels, thus reducing this risk.

What are the other benefits of exercise?

• Physical activity builds healthy bones, muscles, and joints, and reduces the risk of colon cancer. In fact, millions of Americans suffer from illnesses that can be prevented or improved through regular physical activity.
• Physical activity also brings psychological benefits. For example, it reduces feelings of depression and anxiety, improves mood, and promotes a feeling of well-being.

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The information contained in this American Heart Association (AHA) web site is not a substitute for medical advice or treatment and the AHA recommends consultation with your doctor or health care professional.
American Cancer Society Prevention and Detection Guidelines

The following information was obtained from the 1996 Guidelines on Diet, Nutrition and Cancer Prevention

Be Physically Active

Be at least moderately active for 30 minutes or more most days each week.

- Physical activity does not have to be continuous to be beneficial.
- Thirty minutes a day can be accomplished by walking briskly (3-4 miles an hour) for about two miles. Calisthenics, jogging, swimming, gardening, yard work, housework, and dancing are other enjoyable activities that keep one moving.

Stay within the healthy weight range for your height and sex.

- To lose weight, restrict caloric intake and increase physical activity.
- To restrict caloric intake, limit serving sizes, particularly of high-fat foods.
- Remember that many packaged low-fat foods remain high in calories (always read the labels).

Scientific Basis for These Recommendations

- Physical activity can help protect against some cancers, either by balancing caloric intake with energy expenditure or other mechanisms. An imbalance of caloric intake and output can lead to increased risk for cancers at several sites (colon, rectum, prostate, endometrium, breast [among postmenopausal women], and kidney).
- For breast and prostrate cancer, physical activity affects hormone levels.
- For colon cancer, physical activity stimulates movement through the bowel, reducing the length of time that the bowel lining is exposed to harmful substances.
- Maintaining healthy weight also helps to reduce the risk for chronic diseases such as coronary heart disease and diabetes, as well as cancer.
- The guidelines for physical activity are recommended by The Centers for Disease Control and Prevention, the American College of Sports Medicine, a National Institute of Consensus conference, and the 1996 Report of The US Surgeon General.

Surgeon General’s Report on Physical Activity and Health*

Major Findings

- People who are usually inactive can improve their health and well-being by becoming even moderately active on a regular basis.
- Physical activity need not be strenuous to achieve health benefits.
- Greater health benefits can be achieved by increasing the amount (duration, frequency, or intensity) of physical activity.

Health Improvements

- Reduces the risk of dying prematurely.
- Reduces the risk of dying from heart disease.
- Reduces the risk of developing diabetes.
- Reduces the risk of developing high blood pressure.
- Helps reduce blood pressure in people who already have high blood pressure.
- Reduces the risk of developing colon cancer.
- Reduces severity of depression or anxiety.
- Helps control weight.
- Helps build and maintain healthy bones, muscles, and joints.
- Helps older adults become stronger and better able to move about without falling.
- Promotes psychological well-being.

* Many of the beneficial effects of exercise training from both endurance and resistance activities diminish within two weeks if physical activity is substantially reduced, and disappear completely within 2-8 months if the physical activity is not resumed.
Status of the Nation: A Need for Change

Adults:
• More than 60% of adults do not achieve the recommended amount of regular physical activity. In fact, 25% of all adults are not active at all.
• Inactivity increases with age and is more common among women than men, and among those with lower income and less education.
• 85% of US adults do not engage regularly (3 times a week for at least 20 minutes) in vigorous activity during leisure time.
• Only 22% of adults engage regularly (5 times a week for at least 30 minutes) in sustained physical activity of any intensity at all.

Adolescents and Young Adults:
• Nearly half of young people ages 12-21 are not vigorously active on a regular basis.
• Physical activity declines dramatically with age during adolescence.
• Female adolescents are much less physically active than male adolescents.

High School Students:
• In high school, enrollment in daily P. E. classes dropped from 42% in 1991 to 25% in 1995.
• Only 19% of high school students are physically active for 20 minutes or more in P. E. classes every day of the school week.