

## High or Low: Which Way to Go?

By Dan Harvey, for *Current Health*

The choice between a low intensity/long duration and high intensity/short duration exercise program is most often determined by an individual's specific goals—weight loss (low/long) vs. muscle gain (high/short), for instance.

But the growing consensus among experts is that a synergistic (or “holistic”) program that incorporates elements of both is most effective for achieving high fitness levels.

## Low/Long vs. High/Short: A Comparison

Intensity refers to how hard you exercise while duration refers to how long. Low intensity/long duration is aerobic exercise. It involves continuous, rhythmic activity that increases heart rate and optimizes oxygen consumption. Generally, people use aerobics to lose weight and increase cardiovascular fitness. High intensity/short duration is anaerobic exercise. Anaerobics involve short, intensive bursts of activity (“sprints”) that require strength (e.g., lifting weights). They increase lean muscle mass and raise basal (or resting) metabolic rate.

## A Balanced Program

Personal goals usually dictate intensity and duration. But experts now agree that the best program incorporates aerobic and anaerobic exercise broken down into four basic exercise types, including:

- **Cardiorespiratory endurance** – enables the body to do more work with less effort while increasing caloric consumption.
- **Muscular strength** – helps maintain or increases muscle mass.
- **Muscular endurance** – enables muscles to sustain repeated contractions or continuous force against fixed objects.
- **Flexibility** – helps maintain normal joint movement and flexibility.

## Achieving Goals

For a long time it was assumed that aerobics were the best way to slim down. Conversely, people looking to build muscle picked an anaerobic program. But recent studies indicate a high density workout is a more effective weight-loss regimen. A low density workout only burns calories at high levels during exercise, while a high intensity program burns more calories during and after a workout.

During a workout, anaerobic exercise provokes a greater cardiovascular response and places a larger demand on the musculoskeletal system, which expends more calories. After the workout, the body uses fat for recovery. Further, metabolism remains elevated for a longer post-workout period compared to aerobics. Ultimately, increased muscularity increases your overall basal metabolic rate. Stated simply, the bigger your muscles are, the more calories you burn, even at rest.

Still, experts suggest that, whatever your goal, you should design a well-integrated, comprehensive program, especially if you're older and want to maintain good health. A balanced program (aerobics plus muscular conditioning) achieves a moderate to high level of fitness and prevents so-called "hypokinetic" diseases resulting from inactivity: hypertension, heart disease, obesity, diabetes, arthritis, osteoporosis, and even some cancers. It can also prevent depression and lack of energy. In other words, total fitness profoundly improves your quality of life.

### **How Much is Enough?**

Most health experts agree that a good program involves 30- to 60-minute workouts. The President's Council on Physical Fitness and Sports recommends a program that, each week, involves at least:

- Two 20-minute sessions of muscular strength exercise.
- Three 30-minute muscular endurance sessions.
- Three 20-minute sessions of continuous aerobic exercise.
- 10-12 minutes of daily flexibility exercises.

Currently, some experts are leaning toward a more-is-better approach. In 1996, the Surgeon General recommended at least a half-hour of daily exercise. In 2002, the National Academies' Institute of Medicine recommended doubling the amount. Increasingly, experts are raising the weekly amount to a 5- to 7-day range (up from 3 or 4).

### **Benefits and Risks**

Specific benefits include increased metabolism and hormonal secretion, reduced stress, effective weight control, enhanced endurance, increased strength, improved cardiovascular health and better range of motion.

But with the benefits come risk—of injury or worse. Mishaps can be avoided through caution and common sense. Start off with low-impact aerobics like walking, swimming and cycling to avoid injuries to the leg joints. Don't enter a weight-training program full throttle without a gradual buildup. Otherwise, you risk muscle strain, pulled muscles, shoulder and neck injuries, and—especially if you're older—heart attack and death.

It's best to consult a physician first, especially if you're over 35 and inactive. Fitness is influenced by age, sex, heredity, personal habits, exercise and eating habits. Your

physician will evaluate your fitness level and overall health and make exercise recommendations.

Finally, after deciding on your personal regimen, integrate it completely into your life. Consider it as essential to daily life as eating and sleeping.

### **Sidebar 1: Types of Exercise**

Typical and effective activities for the four exercise types include:

- **Cardiorespiratory endurance:** walking, jogging, running, cycling, swimming, aerobics, aqua aerobics, cross-country skiing, rowing, skating.
- **Muscular strength:** heavy resistance training (free weights or machines), short, intensive wind sprints
- **Muscle endurance:** resistance training with light weights and higher repetitions; calisthenics (push-ups, sit-ups, pull-ups), isometric exercise.
- **Flexibility:** yoga, range-of-motion exercises such as toe touching.

### **Sidebar 2: Find Those Hidden Exercise Opportunities**

Exercise doesn't have to be something that's strictly regimented and restricted to a specific time each day. Rather, experts recommend that you try to be as active as possible throughout the entire day (gaining at least 60 cumulative minutes of activity). This can involve finding those so-called "hidden" exercise opportunities. For instance, at work, park your car in the last row, so you'll need to walk farther to get to the building. (Better yet, if you live nearby, why not ride your bike?) If you use public transportation, get off at an earlier stop and walk the rest of the way. Once inside, take the stairs instead of the elevator. When at home, walk to the corner store instead of driving.

Start looking at household chores in a new light. The following chores provide moderate amounts of healthy activity: washing and waxing a car, washing windows or floors, gardening, raking leaves, shoveling snow, cutting grass.

Become engaged in group activities such as community programs or "pick-up" games with friends. Play volleyball or touch football. Shoot some baskets. Take a 30-minute bike ride with spouse or friends.

Not all exercise involves barbells or treadmills.