

Resolve to do better



The new year is just around the corner, which means new resolutions and a determination to get fitter in 2004. Coach Marie Murphy lays the foundations for a fresh start

To master anything we first have to be consistent with what it is we are trying to improve upon. How often you exercise is more important than how much time you spend exercising. Finding the time to exercise and staying consistent long enough to make the difference is the key.

Most people fall short of reaching their fitness goals because they do too much too soon and get burned out or injured before their bodies adapt to the changes. The average time spent on a new fitness programme or new diet is seven weeks. This is not long enough for the body to adapt to the changes.

Nor is it enough time to maintain the results one would be gaining from exerting the effort of the new fitness programme or diet, which is one of the main reasons why so many people gain back the weight lost through dieting or stop exercising.

To make changes in your health when starting a fitness programme, you have to maintain this new stress you are placing on your body for 15 weeks. It is also very important that the goal you set for yourself is one you can see yourself holding for this period of time. Making a little change in your health and holding onto it for 15 weeks is a change made for life.

Here are some of the benefits from exercising regularly: improvement in cardiovascular and respiratory function; improvement in bone density, strength, muscle mass, balance and posture; reduction of body fat and excess weight; reduction of chances of coronary-artery disease; decrease in anxiety and depression levels; improvement in nutrition and metabolic rate; increase in energy level; improvement in

personal records (PBs); enhanced feeling of wellbeing; improvement in understanding of the body.

We know the benefits of exercising but don't always know how much to exercise or, most important, how to stay consistent to receive the benefits of exercise. The guideline for health and fitness and prevention of disease is to exercise three to five days a week for at least 30 minutes and raise metabolism six to eight times its resting

If Mary runs a fitness test of 1.5 miles in 15 minutes (10-minutes-a-mile pace) she has the maximum capacity to expand energy at 10 METS. As a guideline for health and fitness Mary would exercise three to five days a week for 30 minutes running at a pace of 12-14 minutes a mile (6-8 METS or 60 percent to 80 percent of her max METS). If Mary decided to train for a marathon she has the aerobic capacity to complete the marathon in 5 hours 38 minutes.

state (6-8 METS; resting state is 1 MET).

The measure of the rate expended while doing work or exercise is known as metabolic equivalents or METS. Understanding your METS will help you not only understand how to prevent disease but also train more effectively.

Exercise produces heat. We all get hot and sweaty after running a certain distance. The amount of heat produced is directly

proportional to the rate of energy expended, again measured in METS. At rest, everyone expends energy at the same rate, measured as one MET, regardless of age or fitness level.

As you expend energy, your body uses oxygen. At rest, everyone uses the same amount of oxygen for each kilogram of bodyweight. We all use 3.5 ml/kg/min. That's 3.5 millilitres (metric measurement of volume of oxygen used) per kilogram (metric measurement of standardised bodyweight) per minute. This rate of oxygen consumption at rest is equivalent to the rate of energy expenditure of one MET (3.5 ml/kg/min = 1 MET)

What is unique about each person is the rate of energy use and the ability to utilise oxygen, given a certain workload. Both are directly correlated and dependent on fitness level.

For example, if Anne and Brendan run five miles and Anne is able to process more oxygen than Brendan in that distance, Anne is fitter, can sustain higher METS and has the capacity to complete the five miles faster than Brendan.

Knowing your body's maximum METS — its maximum rate of energy expenditure and equivalent maximum capacity for utilising oxygen (VO₂ max) — is important to building an effective fitness programme. Knowing how to improve your METS and VO₂ max and utilising a training programme based on these measurements can be the difference between training smart and risking overtraining or undertraining.

Most amateur athletes are able to sustain 60 to 80 percent of their maximum METS or VO₂ max while exercising for more than 30 minutes. The percentage one can sustain is

exercise training programme

based on individual tolerance to physical stress. Professional athletes typically are able to sustain more than 90 percent of VO₂ max. Optimum improvement occurs when you exercise at around 80 percent of your maximum METS and VO₂ max.

An example will clarify how this works. If Mary runs a fitness test of 1.5 miles in 15 minutes (10-minutes-a-mile pace) she has the maximum capacity to expand energy at 10 METS. As a guideline for health and fitness Mary would exercise three to five days a week for 30 minutes running at a pace of 12-14 minutes a mile (6-8 METS or 60 percent to 80 percent of her max METS). If Mary decided to train for a marathon she has the aerobic capacity to complete the marathon in 5 hours 38 minutes.

Scientists have also found that individuals expending energy at the rate of 6-8 METS at least three days a week for 30 minutes are more likely to prevent disease and live healthier. This is the science that has led them to their recommendation for the minimum amount of exercise to stay healthy.

Things to remember when starting an exercise programme:

- Set realistic goals for when you can exercise. Example: three days a week.
- Keep to the same days if possible. It's easier for the body to adapt to a new stress with a regular routine. Example: Monday, Wednesday, Friday.
- Start at a level you feel you can hold for three weeks. Example: day one, 2 miles; day two, 3 miles; day three, 2 miles – total 7 miles.
- Don't change the stress level for three weeks at a time. Example: week one, 7 miles; week two, 7 miles; week three, 7 miles.
- Once the body adapts to the stress you have placed on it you can change the stress level without risking injury. Example: week four, 9 miles; week five, 9 miles; week six, 9 miles
- Drink plenty of water. Take your bodyweight in pounds and halve that number – that is the amount of water in

ounces you should be drinking daily, not including the water needed when exercising. 120 lbs = 60 oz.

- Incorporate upper-body strength training – for example, weight training with free weights or machines.
- Know the percentages of your daily nutrients. Example: 65 percent carbohydrates, 15 percent protein, 20 percent fat.
- Avoid injury. A muscle that is flexible, hydrated and fuelled has little risk of getting injured. Regular stretching, drinking plenty of water and eating high-complex carbohydrates (glycogen) will help.

It is important to remember certain facts about nutrition when starting an exercise programme.

Carbohydrates are our main source of energy. Of 1,600 calories stored in the body, 1,200 are stored in the liver. The more glycogen you store in the muscles, the longer you can train or work out. To maintain an active lifestyle, your nutrition should always be high in complex carbohydrates.

Proteins are our main source for rebuilding. They are nutrients essential to physical performance and high-level health because of their role in growth and maintenance of bones, muscles, tendons, ligaments and connective tissue. Proteins play a small role in providing energy when compared to carbohydrates.

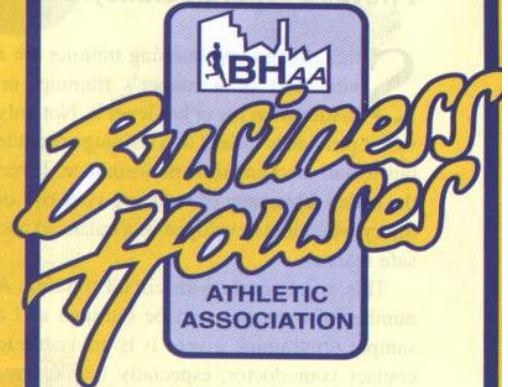
Fats, along with carbohydrates, are an important fuel source for exercise and are essential in metabolic regulation. Excess fat from nutrition causes the release of a brain chemical called serotonin, which induces sleepiness and fatigue. What the body does not use gets stored as body fat, which can lead to serious health problems.

Water makes up about 60 percent of bodyweight. It carries nutrients throughout the body, cleanses the blood, lubricates joints, serves as a shock absorber and helps maintain body temperature. Drinking often is essential. Without water we have no life.



BHAA

BUSINESS HOUSES ATHLETIC ASSOCIATION



keeping business on the move

www.bhaa.net

email: bhaa@eircom.net

tel: 01 6263746

BHAA

BUSINESS HOUSES ATHLETIC ASSOCIATION