

# Choosing the “Best” Exercise Modality

By Jessica Smith

Walk into a modern health club and it’s hard not to feel overwhelmed by the choices. The floor is full of cardiovascular modalities (exercise equipment) designed to burn calories, improve fitness, and tone muscles. While most cardiovascular equipment will accomplish one or all of these goals to varying degrees, trying to decide which machine is best for you can be a daunting experience even for the most knowledgeable fitness enthusiast. When choosing, remember that there is no one "best" machine that for every person in every situation. Each one has its positive attributes and the best choice for you will depend on several factors:

- Your age and fitness
- Whether or not you have or are predisposed to injuries
- Your fitness goals
- Your personal preference

## Elliptical Trainer

There are several reasons why the elliptical trainer is the fastest growing fitness equipment category in both health clubs and home settings. First, while the elliptical is weight-bearing, it is also low impact, making it an ideal choice for overweight individuals or anyone who simply wants a joint-friendly alternative to higher-impact modalities such as running. Second, ellipticals offer variety; including adjustable ramps, variable resistance, and reverse motion. Some, such as the Precor EFX, offer variable stride motion and upper body levers for a total-body workout. Combined, these features allow you to customize your workout, from the intensity to the specific muscles used, while at the same time minimizing risk of injuries that are common with other modalities such as treadmill running and stair climbing.

So how do elliptical trainers stack up to other fitness modalities? Compared to running and stair climbing, research shows that elliptical training is at least, and possibly more, effective for improving cardiovascular fitness. Moreover, a recent study involving subjects with coronary artery disease showed that the Precor EFX elicited greater cardiopulmonary responses than walking on a treadmill at similar levels of perceived exertion. But the benefits don’t stop there. Not only has the EFX elliptical been used during rehabilitation to increase aerobic power and anaerobic threshold when high impact training may not be appropriate, but because it closely simulates running motion, it is also an excellent way to cross-train and improve running mechanics. In fact, the elliptical is effective for improving cardiovascular fitness even in elite level runners.

## Treadmill

Treadmills are standard in nearly all fitness settings, and for good reason. The treadmill is an extremely versatile piece of exercise equipment because it requires limited physical ability, is effective for improving overall health, and offers the advantage of being a weight-bearing exercise.

When walking or running on a treadmill, you are primarily using your legs and gluteal muscles. Because these muscles are relatively large, they require more energy. Therefore you can raise your heartbeat and keep it in its target range, without significant local fatigue. Treadmills also let you vary the intensity by increasing the speed or by increasing the incline. So, if you prefer walking, you can still achieve an effective workout simply by increasing the grade. The treadmill, however, is not without limitations. Because it is weight bearing, it may not be appropriate for individuals who are excessively overweight or who have or are predisposed to injury. For these individuals, a more joint-friendly or non-weight bearing exercise modality such as an elliptical trainer or stationary bicycle may be better.

If you use a treadmill to supplement your workouts or during inclement weather, it is important to realize that running on an indoor treadmill requires less energy than running at the same speed outdoors. To make up for the discrepancy, a good rule of thumb is to increase the incline on the treadmill anywhere between 1 to 4 percent, if you normally run on flat surfaces. If you run on hilly terrain, however, you may want to increase the grade even more, using your heart rate as a guide.

### **Stair Climber**

The stair climber, or stair stepper, is also a weight-bearing exercise that targets the calves, thighs, and gluteal muscles. Stair climbers have an intuitive motion and are functional and easy to learn for individuals of all ages and abilities, making them a viable alternative for many individuals.

Compared to running, the stair climber is lower impact and therefore, may be less strenuous on the joints. That said, stair climbing is still a repetitive motion activity and as a result, be careful if you have limited range of motion in your lower extremities or are pre-disposed to injury. With regard to energy expenditure, stair climbing generally requires greater power output than walking or cycling, resulting in higher caloric expenditure for the same amount of time exercising. However, poor posture can quickly diminish this advantage. The most common mistake is to support your body weight with your arms. This decreases the efficiency of your workout by up to 25 percent, not to mention stressing the wrists and elbows.

### **Stationary Cycling**

Stationary cycles have been a mainstay in health clubs for years, and with the advent of group exercise classes focused on cycling, their popularity continues to grow. Because cycling is non-weight bearing, it is an ideal exercise modality for individuals who cannot participate in weight-bearing exercise.

While cycling isolates the legs and gluteal muscles, it can also cause local fatigue. As a result, it can be difficult to raise your heart rate to target range and maintain it there for any length of time. But compared to riding on the streets, riding a stationary bicycle provides many benefits: a smoother ride, more aerobic efficiency, more options for varying the workout intensity, and no traffic to dodge.

Recumbent and semi-recumbent bicycles variations are getting increasingly popular in many health clubs because they offer many advantages:

- Increased back support, making them amenable to special populations
- Increased safety because of the wide base and ease of mounting and dismounting
- The seats tend to be more comfortable than traditional seats
- They are low impact and non-weight bearing

The one disadvantage of a recumbent bike is that it can be even more difficult than an upright cycle to reach your target heart rate due to the supine position. Nonetheless, because the recumbent bike works the gluteal and hamstring muscles more than an upright, it offers a change of pace for cyclists or anyone who simply wants to add variety to their cardiovascular workouts.

## **Rowing Machines**

In contrast to the rows of treadmills, stair climbers, and elliptical trainers that are often present in health clubs, rowing machines typically take up only a couple spots, if any at all. The reason has nothing to do with effectiveness, but rather their unfamiliarity to the majority of users. Rowing machines require more skill to use and as a result, are often perceived as difficult to learn. They have also had a reputation as being bad for your back. You can avoid this by correctly initiating the movement from your legs and buttocks.

Rowing machines engage the large muscles of the upper and lower body, making it an effective modality for raising and sustaining your target heart rate. Rowing is also a non-weight bearing and non-impact exercise making it an excellent alternative for individuals both with and without limitations. While a rowing machine may not be the first choice for most individuals, it is an excellent way to achieve an intermediate to advanced total-body aerobic workout.

## **Conclusions**

Although it is unlikely that you will make a bad choice, there may be an exercise modality that is better suited to helping you achieve your personal fitness goals. Keep in mind that if you are trying to improve cardiovascular fitness, the intensity you choose will be more important than the specific exercise modality. However, if you are training for a specific event, the modality will also play an important role. For overall health maintenance or weight loss, choosing a modality that you can sustain for forty-five minutes to an hour is your best option. For individuals, particularly women, interested in maintaining or improving bone density, weight-bearing, but not necessarily high impact, exercise is critical. This may include elliptical training, walking or running on a treadmill, or stair climbing, but not rowing or stationary cycling. The bottom line is that regardless of what modality you choose, it should be pain-free and the motions should feel smooth and comfortable.