How To Shop For An Elliptical Machine

The following are some "TIPS" provided for our local customers to educate them on how to "shop", "test", and "compare" ellipticals and their components (parts). In the past 15 years there has been many manufacturers getting into the fitness industry and producing all kinds of fitness equipment. Ellipticals have been one of the most popular pieces of exercise equipment chosen by customers wanting to exercise at home and in health clubs. Please read the following information carefully and if you have any questions, please feel free to ask one of our fitness consultants for a more "In Depth" presentation.

Where can a customer shop for elliptical machines?

Ellipticals are found in many retail environments such as sporting goods stores, specialty fitness stores, and numerous internet web sites. We highly recommend that you purchase from a location that you can actually get on the product and test it. Not all ellipticals feel the same. Most manufacturers have patents on their motions so others cannot duplicate their "Feel" or motion. Not one motion fits everyone so go to a store that has many different manufacturers to choose from.

What should a customer ask about any given elliptical machine?

Not one thing makes an elliptical great! All the parts work together to make either a cheap product or a quality product. The cost of an elliptical does reflect how many quality components (parts) go into it. Most elliptical machines use magnetic resistance (eddy current brakes). These work in conjunction with lower and upper computer boards. Ellipticals also use many bushings and bearings due to the many pivot points. Cost does reflect how much quality goes into the small and large parts. So there is not (1) specific part that is the most important! Each of the individual parts mentioned above will be discussed more thoroughly later in this guide. Ask about all the parts, not just one! All the parts determine how long it is going to last and perform. Some of the most important questions are not about the elliptical at all, they are about service. Who services the elliptical when it breaks down? Are they local? How long does it take to get a problem fixed? Are parts for each elliptical stocked by the service company? These type of questions really should be weighed in your decision of what elliptical you purchase.

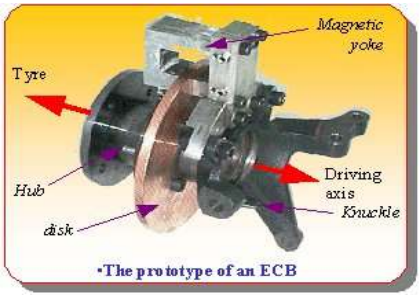
EXTRA INFORMATION: Before you make your purchase, ask for the phone number to the service department from whatever company you are thinking of purchasing. Is it a local number? Where are they located? How long does it take for them to respond to a service call? How long to order a part? What good is a $300, $500, or $1,000 purchase if you have a hard time getting service?

Is it better to buy a "Used" elliptical?

A used elliptical is a very risky thing to purchase. There are so many mechanical and electric parts! Unfortunately you cannot look at a motor or electronic board and see how much life it has left or how much it was used. The same goes for bearings, bushings and pivot points - you just can't tell what life is left or what life was taken from the machine from it's use. There really is no formula or precise, tactical way to investigate a used elliptical. This does not mean they are not worth purchasing. If someone is not sure they will stay with an exercise regimen or cannot afford a new elliptical, then the purchase of a used elliptical has less liability. However, it is very important again to ask about service on anything used. Is the used product still made? Are parts still available if something breaks down? Who is the service company? Are they local? Many manufacturers do not allow the original warranty to be transferred to a second party and that means more risk to the purchaser of the used elliptical.

PARTS COMPARISON

Eddy Current Brake System



An "eddy current" brake system is the smoothest type of brake or resistance because it utilizes magnets to supply the resistance for the product. In fitness equipment, it has been a very important improvement in the past 5 years due to many consumers wanting their equipment to be quiet. Magnetic resistance is one of the quietest resistances on the market today. However not all magnetic "eddy current" brake systems are the same. Some are very simplistic and low cost while others are very complicated and high cost. Magnetic resistances usually work in conjunction with a compact servo motor to move the magnets into position for a resistance and a lower computer board that tells the motor when to move the magnets. These 3 parts work together as a team, if one is weak the whole system will break down prematurely. If all parts are good quality, they will all last a long time. This section of parts comparison is dedicated to the magnetic brake. Some following sections will discuss the lower electronics board and the motor.

EXTRA INFORMATION: An example of a low cost magnetic resistance would be a "Hand Crank". This type of magnetic resistance has a round knob located on the neck of the product just below the computer. You turn the knob in a clockwise or counter clockwise motion to increase or decrease your resistance. The knob is connected to a cable that runs down to the magnets. A lever arm pushes or pulls the magnets closer or further from the flywheel causing resistance. This type of magnetic resistance cost the least amount of money to manufacture. When testing ellipticals put the resistance on the lowest setting, the middle setting and the highest to see how they feel. Weak magnets will cause a "slipping" feeling at higher resistances. You may not think you will use the higher resistance when testing a unit but if you use the elliptical regularly, there may be times in the future where you will need consistent resistance on the higher end.

Compact Servo Motor

Compact servo motors are a smaller and more compact motor than ones used in treadmills. The main function of a servo motor in an elliptical machine is changing the angle of the magnets or resistance during a program. If you use a program that changes resistance many times during the workout, the motor will work fairly hard therefore you need it to be a good quality servo motor. These motors work directly with the lower computer boards. The lower computer boards tell the motors what resistance is needed, pending the program the elliptical is in. Like other motors, heat is the biggest thing to cause premature wear and tear. The higher the quality of the compact servo motor, the longer it will last and the more it will make the elliptical cost. If you see an elliptical for $ 500 and another for $ 1,000 and they both use an eddy current brake system for resistance, the majority of the difference in the price will be the quality of the compact servo motor and lower electronics board. A consumer cannot get a feel for the quality of the compact servo motor by using it on the showroom floor, however it is directly related to the price you pay for the elliptical.

Lower Computer Board (Power Supply)

Lower computer boards are just as important as compact servo motors. The lower computer board supplies the motor with all the information of what is happening on the elliptical.. The lower computer board works with the upper display board

and the compact servo motor. Information is exchanged and processed in the lower computer board. It is constantly processing information that the user inputs into the computer pertaining to programs and user information. The lower computer board also instructs the compact servo motor when to adjust the resistance for the user, depending on what type of program the user is using. Heat is one of the main reasons why lower computer boards fail. The higher the quality of the lower board, the longer it will last. This reflects in the ellipticals cost. When an elliptical is being used for thirty minutes or more at a time, the lower computer board and compact servo motor get warm / hot due to the work being performed by each. The lower the quality of the lower board, the hotter the board gets and the quicker it begins to fail. Higher quality boards will take daily workout with minimal failure or breakdowns. Typically the better the quality of the lower board, the heavier the weight capacity (user capacity). So if you have an elliptical that has a weight capacity of 200 pounds and another with 300 pound capacity, usually that is directly related to the lower computer board and heaviness of the frame. The 300 pound capacity elliptical having a better lower computer board and heavier frame to take more weight and usage. However the user capacity can sometimes be manipulated by the manufacturer in order to look as good as another manufacturer. If in doubt, ask the sales representative to explain why the weight capacities are different.

EXTRA INFORMATION: Other boards that cause the cost of an elliptical to go up in price are "strider boards." These are electronic boards that go on each foot or pedal arm that allow the elliptical to lengthen or shorten its stride for the user. Many ellipticals are set at one particular stride length. Some manufacturers are starting to make the strides adjustable. This requires more parts and more electronics. Higher quality electronics are needed on strider boards due to the amount of stress on them during a thirty minute workout.

Frame

A good elliptical machine starts with a good, solid, heavy frame. This frame helps to determine what the user weight capacity will be on the elliptical in conjunction with the quality of the lower computer board electronics package. There are many parts to the frame. An elliptical machine has many moving parts using bushings and bearings to allow for the arm and leg movements. The parts can be very cheap or very expensive depending on how smooth the manufacturer wants the machine to feel. Unfortunately most bushings and bearings don't make a sound until they are warm from 10 - 15 minutes of usage. Most consumers try a machine for 2 - 3 minutes in a showroom. The pivot points don't get a chance to get warm and work hard. This is when the machine tells its true quality. Cheap bearings and bushings will start to "knock", "squeak", "grind", and "tick" when they are being used well. So you need to give the product a good workout in order to be fair about the quality of the frame, bearings, and bushings. Again, price reflects quality. A lower priced elliptical is normally using pivot points with lower quality bushings and bearings that will require periodic lubrication by the user. Higher quality frame, bushings, and bearings will not make much noise over its life expectancy.

Upper Computer Display

The upper computer display is the "face" of the elliptical. It is what you are mainly looking at while exercising. There are two types of upper computer displays - LCD (liquid crystal display) and LED (lighted electric diode) display. An LCD display has a gray background with black numbers. An LED uses red, green, orange, or some kind of colored lights. An LED display typically is more expensive and much more attractive to a consumers eye. Many ellipticals now have preset

programs, custom programs, and heart rate programs. Look at the size of the actual display, most are made of plastic. The display will show time, distance, calories, watts, rpm's, and heart rate. Many manufacturers use a very small upper display in order to allow for upper body development. Most ellipticals have moving arms so the displays have to be narrow to accommodate this. Programs that do make the elliptical cost more are Heart Rate Control programs. These programs require the user to wear a wireless transmitter belt around the chest. This relays a signal to the elliptical showing your heart rate and adjusting your resistance or load to put you in your appropriate heart rate zone, maximizing your cardiovascular benefits. Be very aware how lower quality elliptical manufacturers put all kinds of "gadgets" on their display's to take your mind off the most important parts of the elliptical. Displays with CD players, aroma therapy fans, phones, televisions and head phones look attractive but they do nothing to prolong the life of your elliptical! Compact servo motors, frames, lower electronics, etc., make up an ellipticals price - not the gadgets. We are not saying these types of things are not good to help you stay motivated to keep exercising but they are not necessary on the upper display. You can have a very big, oversized, gadget dominated upper display to look at but it will not benefit you if the compact servo motor stops working. Keep your focus on the main "Guts" and "Feel" of the elliptical - not the gadgets!

EXTRA INFORMATION: Heart rate monitors are very important features of any elliptical purchase. However, many people do not understand what the accuracy is for the many different styles. "Hand-Touch" or "Hand Grip" involve putting your hands on two round electrodes. This type of heart rate reading is normally about 85% accurate when standing still, but if you are moving (and most people are when on an elliptical) the accuracy goes down to about 55%. The most accurate form of heart rate readings are the wireless chest straps. These take the heart rate off the chest above the heart and have been proven to be 98.5% accurate. The least accurate are "Finger Tip" and "Ear Clip" styles still found on many lower end ellipticals. Your finger tips and ear lobes are so far away from your heart that the accuracy is very low. Many of these types even state in their owner's manuals that the accuracy can be thrown off by things such as movement! Go Figure! Movement - isn't that what you are supposed to do when exercising? The absolute worst is "Thumb Pulse." Talk to any doctor or nurse and ask them if you ever take someone's pulse with your thumb - they will tell you NO! Your thumb has a slightly different pulse rate than your true pulse, therefore it cannot be trusted. Here is another example of why "Hand Touch" is not as accurate also. When you grip the "Hand Grip" style, does your thumb rest on the electrode? Yes it does! All these reasons point to someone either getting a wireless transmitter belt style on the elliptical or purchasing a free standing unit that can be used on any cardiovascular product.

The "FEEL"

The "Feel" of the elliptical is a very important part of the buying process. Some ellipticals have short strides, some have long strides, some are wide, some are narrow and not everyone likes the same thing or "feel." This is why you need to test many different models on the market to get one that fits your body and leg length. Many manufacturers have patents on their elliptical motions. Some feel more like a treadmill, some feel more like a stepper, others feel somewhere in-between a ski machine and a treadmill. They all feel different! Shorter strides tend to feel more like stair climbers, while long strides feel like treadmills or ski machines. Ellipticals are also called Cross Trainers because of the "Feel" being so different for each person. All these different "Feels" can confuse a consumer. Listen to your body when testing an elliptical. Does if feel smooth? Does the stride feel too short or too long? Do the arms pull you forward or push you back? Does the motion feel smooth going backwards? Many people can tell within a few seconds of working out on an elliptical if they are going to like it or not. This is why we tell you to try many different models out and you will see why there are so many on the market, because nobody likes the same "Feel." Adjustable stride elliptical machines are starting to gain a lot of popularity on the market. An adjustable stride works best when it is being purchased for multiple users in a family. Like we said before, many manufacturers have short strides, others have long strides. If someone in a family is 5'2" and someone else is 6'2", that is a very big difference. It is unlikely an elliptical with a permanent stride length is going to satisfy

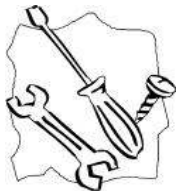
both of the people described previously. However if an adjustable stride elliptical is purchased, then the shorter person can use a short stride length (usually between 15" - 20") and the taller person can use a long stride length (usually between 21" - 26" on the same machine. On these elliptical machines, the "Feel" can change from one length to another so again, you must try them out to make sure the "Feel" is what you like.

EXTRA INFORMATION: Just because a machine states it has a "Patent Pending" doesn't mean it is better than another product. Elliptical machines have revolutionized the home fitness market with a lower impact alternative to the treadmill category. Some people hear the word "Patented" and think the product must be special. There have been millions of patents given out in the world. That does not mean each idea for each patent was a good idea. Every elliptical manufacturer has their reasons of why they want their machine to feel the way they do. Every elliptical manufacturer has to do something different than the rest of the manufacturers with patents on their ellipticals in order not to infringe on another company's patent. Some company's ideas and patents are better than others - again try out 4 or 5 different manufacturers to see how much difference can be involved in making an elliptical machine.

Dual Action (Upper Body)

Using an elliptical machine with upper body (dual action) will increase your heart rate faster and help you sustain a higher heart rate longer. There are a few ellipticals on the market today that only work the lower body. These ellipticals burn less calories due to the user not moving any upper body muscles during an exercise program. If someone does not like the upper body arms on an elliptical, they do not have to use them. In fact, most people use the dual action upper body in intervals, like every other 5 minutes. This way they can concentrate on the upper body every 5 minutes and add a little variety into their workout program. Some manufacturers only give you one place to put your hands for upper body work. Some elliptical manufacturers realize the arm action is just passive to some users. They hold on but don't push and pull. This type of exercise (passive exercise) still burns calories. The legs do most of the work on an elliptical but the arms can help take some of the work load off the legs when they get tired. That is why many manufacturers elect to put them on their product. It is better to have them on the product than to leave them off. Some manufacturers put multiple hand positions on their upper body to help work different muscle groups.

Service



When you are purchasing a new product of any kind, many people neglect to ask about how the product will be serviced if it breaks down. Ellipticals are like automobiles, they are going to break down. There are many things you can do to help prevent breakdowns but eventually parts will need to be replaced. Local service is the most beneficial for any consumer. Before you purchase any elliptical, find out how to get service on the elliptical you are purchasing. Ask the following questions: Where is the service company located? How long does it take to get a service technician to your house when a breakdown occurs? Are parts stocked for quick repair times? Ask for the service phone number so you can call the number and see if there is a problem getting through. Ask how long they have been servicing ellipticals? Is the service company associated with the store you are purchasing it from or a subcontractor? Service for your elliptical is just as important to ask about as the components for the elliptical. How good is an elliptical that costs $500, $1,000, or $2,000 if you can't get it serviced when it breaks down?

Our History, Our Future, Our Story - Exercise & Leisure Equipment Company

In 1936, Franklin Delano Roosevelt was the President of the United States, the book Gone With The Wind was published and a man named Art Becker from Northern Kentucky started a company called Health Equipment Company. He sold a product called "The Exercycle" door to door for years. Once the business built up over many years, he opened a store in Norwood Ohio. He added more products like treadmills, bikes, and gyms to sell to commercial facilities to help the company grow. Each year business got bigger and bigger. Art's two son's Mark and Jerry entered the business in the late 1970's to help the company grow even more. They renamed the company Exercise and Leisure Equipment Company and opened a mega store located in Columbia Township - Ohio to showcase fitness in a grand fashion. In the 1980's fitness and health started to become a main concern to people due to illnesses related to lack of exercise. Jerry's two son's went to college and began to work in the family business in the late 1980's / early 1990's. In 1994 Exercise and Leisure Equipment Company expanded back to where it had started in Northern Kentucky. Our Ft. Mitchell location showcases the highest quality residential fitness equipment brands on the market. Fitness equipment categories like treadmills, elliptical machines, bikes, climbers, rowers, free weight benches, home gyms, etc are on display for customers to try out and ask questions. Exercise and Leisure Equipment Company has been the tri-states resource for home and commercial fitness equipment for many years. Come in and see 70+ years of experience in our company details. Here are just a few of them:

1 Our "FITNESS TEAM" is educational about helping you make the correct purchase, not selling you on a piece of equipment. Meaning we will give you the information to help you make a decision based on product facts and exercise regimens. You make the decision to buy yourself, not "pushed" by a salesperson.

2 "In-Home" installation and delivery are offered on most of our products. Some restrictions do apply! Ask about details when in our store. Our delivery crew(s) are employees who work for us, not subcontractors. We come to your home, in our company trucks and company uniforms. No need to worry about "some assembly required" with Exercise & Leisure - we make it look easy.

3 Service is second to none! Every person who purchases a product from Exercise and Leisure will have access to our service department when it is needed. Again, no subcontractors here! We come to your home in company service vans and company uniforms. Most service calls are responded to within 72 hours.

Exercise & Leisure Equipment Company - "On our third generation: growing & going strong." - **Randy Becker**

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