Gazelle Sports

Choosing a Shoe

It is critical to take time to choose a shoe that meets your needs. Please consider the following in selecting a pair of new shoes.

Size - When Edward II decided in 1324 that three average sized barley corns placed end to end would equal one inch the English shoe sizing for length was created based on this standard. English sizing starts at zero for four inches then with each successive barley corn (1/3 inch) the size increases by one. After thirteen sizes the children's sizing stops and men's sizing begins. And then there is women's sizing that uses the same standard but starts between one and a half and two sizes smaller then the men's. If this all sounds a bit crazy, it is! And you should avoid the idea that your feet are a certain size in a number and fit each shoe independent of a particular size. The foot is sized not by length alone but in width and girth and matching this factor with the shoe you purchase has just as vital role as the correct length. Shoe widths are measured at the forepart of the foot at its widest point. Fortunately more footwear manufactures are offering width sizing in their models.

Foot type - Along with the size of your foot, knowing your foot type will help you select the best shoes for your feet. A method for classifying foot type is by the condition of the medial long arch. Your footprint is the indicator for your foot type. There are three common groups - normal, flat foot, and high arch. A normal foot has a normal sized arch and leaves an imprint that shows a crescent-shaped gap between the forefoot and heel with a band connecting the lateral side. A flat foot has very little or no arch and leaves an imprint that shows contact throughout the whole sole. A high arched foot has a rigid arch that leaves no imprint so that the footprint is split into separate rearfoot and forefoot areas.

Time - Make sure you have appropriate time to try on multiple sizes and styles. You should have at least 30 minutes available to select the right shoe. If you stand on your feet for much of the day it is important to buy shoes later in the day when your feet will be the largest.

Socks - The microclimate around your feet plays a large part in the comfort of a shoe. Heat, perspiration, and friction can create discomfort, blisters, and inflammatory pain. And for persons with diabetes the loss of feeling in the feet combined with these conditions can lead to severe trauma. Choosing a sock that is made with performance fibers can avoid these problems while cotton socks will aggravate them. Although cotton socks are comfortable initially, they can absorb

up to four times their weight in moisture. The combination of wet fabric and heat or friction is the environment that leads to problems. Socks made out of materials like Coolmax will move moisture away from the foot and will help with thermal regulation. Choosing between a thick padded sock and a thin sock is another consideration. This also can enhance the fit of a shoe. The way a sock is constructed plays a significant role in comfort and function. Today you'll find non-irritating toe seams, Y-shaped heels, ribbing around the arch, and friction free double-layered socks. Most people give little thought to the features of the socks they wear. However, buying a quality sock may be the best investment you can make for your feet.

Old shoes - Keep track of the shoes that work well for you. And the shoes that don't and end up in the closet. Bring this information with you when you are selecting new shoes. Or better yet bring the shoes with you so that the sales clerk can distinguish what features give you the best fit and performance.

Shoe test - Although you should spend time trying on shoes in a store there is a possibility that they may not work well for you. After purchasing shoes try them on again at home and wear them for several hours. You may want to take them to a track and walk a few laps. Most shoes should be comfortable right away without any points of irritation. If you find they aren't quite right, take them back immediately and describe you problem. A good store will always help you find the right product.

Buy from experts - Buying from a service-oriented store can make a difference in finding the right footwear. The sales person should be knowledgeable about feet and the products he offers. Asking many questions is wise and they should be greeted with competent answers. If you have specific problems or past injuries this is even more critical. It is best to develop a relationship with the person who sells shoes so that your needs are known and accommodated.

Insoles - These are often overlooked in the purchase of footwear. However, they play an important role in comfort, shock absorption, and support. Insoles are most likely a very thin foam insert that is glued to the interior of the shoe. Some insoles are removable particularly in athletic shoes. Over the counter insoles are better than most that come in shoes which typically wear out within weeks. Although the technology in shoes can give you cushioning, stability, and support, sometimes it is not enough. Adding a more stable or cushioned insole can relieve pain, reduce fatigue, and prevent a wide variety of injury. Insoles may also enhance fit by taking up additional volume for narrow feet or increasing volume for wide feet. Sometimes insoles available at retail are not enough and orthoses should be fit and made by a doctor.

The don'ts - Do not allow a marketing campaign to influence you any more than peaking your interest. Some marketing can provide excellent information but it does not mean the product will be correct for you. Do not let a friend influence you to select a specific shoe. The shoe may be from heaven for their feet however it most likely is not the right one for you. Do not buy a "team shoe". Frequently sports teams purchase the same shoe for everyone. This is not a

good decision and should be avoided particularly if you have any foot problems or past injuries.

Buy quality - All shoes are not created equal even if aesthetically they appear the same. And although you don't have to purchase top of the line products, spending to get quality footwear can save much aggravation later.

Fit

Fit is the most essential aspect of the marriage between your feet and a pair of shoes. Feet are three-dimensional and therefore need to be fit to length, width, height and shape. A good fit consists of the following:

- The footbed of the shoe (midsole/insole) should comfortable and contour the bottom of your feet. The heel should be cupped, the medial arch should be positioned correctly corresponding to your arch, and the balance should feel natural.
- The fit of the shoe's upper should cradle your heel, wrap securely through the midfoot, and give wiggle room for your toes.
- The depth of the shoe should match the height at your instep comfortably.
- There should be no pressure points from seams, insoles or upper fabrics that will irritate you later.
- The shape of the shoe should match the shape of your feet. Some people have straight feet, some slightly curved. Some people need extra depth, some a very narrow heel. With 26 bones making up each foot there are many variations of shape that need to be accommodated.
- Different foot lengths are common although usually minor. However when it is more than a half a size it requires the person to fit the larger foot and potentially use a modification for the smaller foot. In all cases try on both shoes.

Lacing of the upper offers the opportunity to help fit a shoe more uniquely. Recently many shoes have added extra eyelets or replaced eyelets with gullies (pull tabs made of fabric). These can secure a shoe on a foot by aligning the upper more closely to an individual foot shape. Also the use of horizontal lacing can reduce pressure on top of the foot decreasing the problem of feet going numb.

If all aspects are perfect except the fit, it is still not the right shoe for you. Fit is the most important factor in shoe selection.

Shoe Construction

It is useful to understand some basics of shoe construction so that you can discuss and select a quality shoe. The design of each component, the materials used, and the construction of the finished product all contribute to the shoes ability to meet your needs.

Shoes are built around a last that resembles the shape of a foot. Manufactures spend considerable amounts of research to create lasts that will match the shape of their footwear to specific foot types. The upper of a shoe is generally sewn together by hand then secured to the last and attached to the sole. There are three processes commonly used in the lasting - cement lasting, slip lasting, and injection molding. The shape of a

shoe is dependant on the last shape, the lasting process, and the materials from which it is made.

The materials in each component of shoes make up its quality. The following describes the basic components.

Outsole

The outsole's function is to provide protection, traction, and durability. It can also play a role in flexibility, stability, and cushioning. Outsoles are most commonly made from rubber or compounds mixed with rubber. They also may be leather or polyurethane.

Midsole

The midsole's function is to provide cushioning, support, stability and guidance. Midsoles are made from polyurethane, ethylvinylacetate (EVA), rubber mixed with compounds, and other foam polymers.

Insole

The insole's function is primarily for tactile comfort although it may add cushioning, moisture control, support, and guidance. Insoles are made from EVA, polyester, thermal plastic, graphite, and foam polymers.

Upper

The upper functions to position, support, and protect the foot. It also is the primary influence on fit. The upper consists of four distinct parts, the heel and heel counter, the midfoot saddle, the toe box, and tongue and lacing. Materials and design are wide ranging. Some are functional others are simply aesthetic.

Athletic Shoes

Athletic shoes have influenced the entire footwear industry. Today whether you're wearing a dress shoe, a hiking boot, a sandal, or a walking shoe most will have incorporated materials that dissipate shock, make the product light yet strong, and have molded polymer midsoles for comfort. These technologies and others were first developed for athletic footwear as manufactures tried to meet the needs of an increasingly diverse group of persons who stay active in sports or fitness. Although different shoe types utilize similar technology, athletic footwear has evolved distinct products to match different uses. In most cases the specialization of footwear meets unique needs for a sport or activity. Construction is different for a tennis shoe that needs to provide strong lateral support and a highly durable forefoot compared to a running shoe that provides shock absorption at rear foot impact and efficiently supports the foot through heel to toe transition. The more active you are the more important it is to select footwear within a specific category.

Almost anyone can benefit and enjoy a good quality athletic shoe for daily use. Even if a person is not active these shoes often support the feet, prevent problems, and minimize

pain better than casual or dress shoes. Use the "Choosing a shoe" section and try on footwear from several categories (i.e. walking, running, light weight hiking, or cross training).

The following section gives some further advice for different footwear types and activities.

Running

Running is very demanding on feet and legs. The repetitive stress from the force of deceleration at impact and propulsion at toe off combined with a person's foot anatomy, biomechanics, and gait make wearing the proper footwear essential.

Innovations in running footwear continue each year. However all quality running shoes share the following components:

- An abrasion resistant outsole particularly in the rearfoot.
- A midsole that dissipates the force of impact.
- A stable rearfoot that controls unnecessary motion.
- A higher heel height and a flexible forefoot that enhances role through.
- A breathable fabric upper.

Along with these features shoes may have multiple technologies and designs that add to cushioning, motion control, flexibility, decrease weight, and better fit. Finding the right combination for your feet can take time but it will be worth the effort.