

Four Ways to Improve Orthotic Function

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Patients occasionally report concern with their orthotics. In many cases, the problems or complaints could have been avoided from the outset by providing the patients with a few simple instructions. Here are four common problem areas with respect to orthotics that can usually be easily prevented.

1. Keep the footbed flat. Orthotics are designed to rest on a flat surface within the shoe; when they don't, problems quickly develop with fit, comfort and function.¹ Always make sure any generic insoles have been removed from all shoes before inserting custom orthotics.

Patients must be informed that whenever they see another insert, an arch "cookie," or anything that causes a rise in the footbed of the shoe, it must be removed. Failing to do this is a very common, yet completely preventable cause of poor response and intolerance to wearing foot orthotics.

Unfortunately, some shoe and work boot manufacturers now build permanent medial arch supports into some models of shoes. Using an orthotic in that style of shoe becomes impossible. In those cases, patients must be told that they will not be able to wear those specific pairs of shoes.

2. Make sure the shoes fit. Patients must also understand that their orthotics will only function properly in shoes that fit their feet.² The best orthotics are designed for the individual's feet, and usually for certain styles of shoes; therefore, they cannot be expected to be comfortable and supportive in all types of shoes.³ Orthotics made for dress shoes will not be comfortable in athletic shoes, and orthotics for sports shoes are unlikely to function appropriately in Western-style boots.

As children grow and change shoe sizes, new orthotics must be made to fit their larger feet.⁴ Feet continue to change size as we age, and many adults (women in particular) do not wear the correct size of shoe.⁵ Ignoring this reality (an all-too-common occurrence) will cause problems in comfort and in function.

3. Be aware of lifestyle changes. Another source of problems occurs when a patient undergoes a lifestyle change that requires a different type of orthotic, but doesn't realize it. For instance, an increase in weight may make a patient's present orthotics unsuitable.⁶ In such a case, an upgrade to a more supportive, shock-absorbing model may be necessary. Aging patients may develop adult onset diabetes or joint degenerative changes that require more easily tolerated orthotics.

New job assignments and recreational sport activities are also changes that can interfere with the proper functioning of original orthotics. In all of these situations, a re-evaluation is necessary to determine which type of orthotic will meet the biomechanical needs and provide appropriate support and shock absorption. Too often, patients simply assume the original orthotics will continue to provide adequate control of the new forces, causing new and/or recurrent problems that could have been

easily avoided.

4. Keep orthotics dry. Humidity, dampness and perspiration will cause problems with most types of orthotics. Older orthotics, made mostly from cork and leather, are particularly affected by wetness. Even most of the newer, high-tech materials can be damaged and eventually break down with long-term exposure to excessive moisture. Preventing these problems requires patient education and specific drying techniques.

Make sure each patient knows how important it is to avoid exposing his or her orthotics to moisture and perspiration. Sweaty feet will shorten the life of almost any orthotic, no matter what material it is made of.⁷ One solution is to wear socks made from natural, breathable fabrics, such as cotton and wool, rather than nylon (which is notorious for causing feet to perspire excessively). Nylon does not wick away moisture, and it doesn't breathe at all. Antiperspirant powders and foot sprays are only temporary solutions and can cause a "rebound" effect, resulting in increased sweating as they wear off.

Weather-related sources of moisture (such as dampness and humidity) are often impossible to avoid, so steps must be taken to minimize their effects on custom-made orthotics. In these circumstances, patients must remove the orthotics from their shoes and let them air dry overnight.⁸ Attempts to rapidly dry orthotics using hairdryers, ovens and fireplaces are dangerous, and frequently cause permanent damage to materials used in orthotic construction. When this happens, not only is the life of the orthotic shortened, but the support and shock-absorbing characteristics can be changed significantly, resulting in increased musculoskeletal problems.

Two recommendations will help considerably: First, instruct patients to remove the orthotics from their shoes every evening and lean the orthotics against a wall or baseboard. (They'll usually dry out overnight.) Second, always recommend two pairs of orthotics for patients who exercise regularly, so they don't have to use the same pair in both their exercise shoes and work shoes. The same recommendation should apply to patients who perspire excessively, regardless of whether they exercise.

When patients have a workplace or sport that frequently causes their orthotics to get wet, they should take advantage of an orthotic model composed of waterproof materials, manufactured to hold up under repeated drenching - even immersion. Contact your orthotic laboratory for its recommendations when you are fitting such a patient.

Help Patients Get the Most From Their Orthotics

Regular communication between doctor and patient is the critical factor for preventing most orthotics-related problems. Discussing the proper care and fit of custom-made orthotics in shoes will help prevent many problems. Questions about lifestyle changes are necessary to identify those situations that require different materials or models of orthotics. When patients frequently report problems with their orthotics, the cause is often a problem with the doctor-patient communication process. Keep educating and questioning your patients, in order to identify and/or prevent any potential orthotic concerns. By doing so, you'll have satisfied patients with successful experiences - both orthotic and chiropractic.

References

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