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**ab7. Orthotics**

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The purpose of orthotics is to hold the ankle in the neutral position when standing upright. This is called the weight bearing position of the foot, as opposed to, the 'heel strike', and the 'toe off' positions. Any method of holding the ankle in the neutral position will do. Some over-the-counter arch supports do a good job. The problem is that different people's feet are different, and one foot may have different needs than the other. The following things have to be noted.

- The distance the arch is between the toe and the heel.
- The distance between the medial (inside) and lateral (outside) sides of the foot.
- The height of the arch support necessary to hold the ankle in the neutral position.
- The volume of the arch needs to be match to the needs of the foot.
- Also the material the orthotics is made out of should be matched to the needs of the foot.

Any additional needs of the foot should be addressed as in fore foot positioning, any heel spur problems, etc. It is usually easiest to take an impression of the foot by some method and then mould the orthotic to this impression. This can be done with plaster casting, or 'step in' foam or computer analysis, or some other method.

The area that is controversial is whether the impression should be taken while the foot is weight bearing or when it is not weight bearing. The discussion goes something like this.

**One side of the story**

If you take the impression when the foot is weight bearing then the foot will flatten out and the bones will take up their ABNORMAL positions. This is said to be a poor way to take the impression even though the laboratory that makes the orthotic might claim to compensate for this somehow. Likewise, computer generated Orthotics claim to compensate for the flat foot as one walks across the computer sensors.

**The other side of the story**

On the other hand, if you take the impression when the foot is NON-weight bearing, and you hold the ankle in the neutral position, then you do not get the natural flattened weight bearing position of the foot, keeping in mind that the orthotic only works in the weight bearing position. It would make sense then, that this is the position the impression should be taken in.

So, which story is right? Scientific research has not shown yet, if one way is better than the other.

The bottom line is, if the orthotic holds the ankle in the neutral position when weight bearing then it does not matter how it was made. The non-weight bearing method may make an orthotic slightly more comfortable, but that is only speculation. Millions of orthotics are made both ways and they all work if they are made properly.

Most people cannot tolerate a full correction on their first set of orthotics. Allowing the orthotic to flex (bend) a little tends to make an easier fit to tolerate. The next time you get an orthotic it can be made to full correction, probably sometime after a year is up. Orthotics only last one or two years before the foot changes and/or the orthotic wears down a little.

If a patient has a lot of 'Fore Foot' abnormalities then this patient should be referred to a foot specialist. For uncomplicated cases a chiropractor is probably best suited to evaluate the entire limb (foot, ankle, knee, hip) and also evaluate the pelvis and lower spine.

Most professions who make orthotics charge between \$400 and \$650 Canadian. There is no difference between the \$650 orthotic and the \$400 orthotic. One person is just charging more that's all. It is like paying more for one car than another of comparable quality. One company wants more for its name. If you think \$650 is too much and your Insurance will not pay, then go to someone else. Insurance companies generally pay for one pair of orthotics a year. But, policies vary, so ask.

Remember that an orthotic needs to be supportive. If the material compresses a lot under body weight then it is NOT going to be supportive. Soft spongy flimsy materials do not make good orthotics. But then, rock hard orthotics may lead to heel strike pain. Take a health care professional's advice. Having orthotic made at a fair somewhere is just asking for trouble.

Some chiropractors do not make orthotics. If your chiropractor does not fit orthotics then ask for an orthotic referral to another chiropractor who does fit orthotics.

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