

# Insoles and patient compliance: Patient compliance is for their benefit, not mine

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Occasionally, my new clients look at me inquisitively as my questioning and examination go way beyond their expectations or that experienced before; maybe they have only come for simple callus reduction or nail cutting. My aim is to improve their 'quality of life' and by examining in depth, their problems or abnormalities I hope to alleviate the cause of their symptoms. This takes time and careful observation and questioning. One of the ways that I can improve their quality of life is by the manufacturing and issuing of patient-led corrective insoles.

Limb length discrepancy and pronating feet can lead to a whole list of everyday expectations of 'getting older' or 'work-related' symptoms.

After observing and questioning, temporary insoles are the second step along the pathway to reduced or eliminated lower limb pains but also improved posture, reduction in falling, more steadiness during the gait cycle and standing, improved circulation, reduction in ankle and foot oedema, reduction in lower limb cramp and sciatica, less tiredness, improved mobility and an improved lifestyle. These improvements in symptoms, are extra to the normal discomfort and pain reductions that are normally associated with the introduction of insole therapy, for problems caused by abnormalities in foot and lower limb function and structure.

As a bio-mechanical specialist I have many referrals who benefit from corrective insoles, and it is only by continuous compliance that the symptoms for the original

consultation can continue to be reduced or eliminated.

## COURSE OF PRACTICE

Presented are two typical case studies that show by careful patient observation and questioning, one can move from temporary to permanent insoles achieving close to 100% compliance.

### Case Study 1

Female, Caucasian, aged 75 years. This lady is at present being seen by an osteopath who referred her to me for possible insole therapy.

She presented with a painful right hip and left knee that the doctor had diagnosed as osteoarthritis. A normal case history was taken. She had experienced the hip pain for four years and the knee pain for about 18 months.

Working from head to foot on the pain chart I noted: pain to right side of neck, pain in mid back (not for some time), pain in right hip, pain in left knee, and shin splints both legs with the pain mainly coming at night. (My pain chart consists of a matchstick man with arrows and comments, so that I can see at a glance the 'where, when and how' of my patient's pain, cramp and discomfort. If oedema is present, I measure the feet around the medial arch and around the ankle, and note the type of oedema.) Both NCSP and RCSP were recorded.

The measurements of her feet were: left ankle, 25cm; arch, 26cm; but I did not measure the right. Both feet pronated and she used a walking stick in her right hand. She was an overweight lady with genu valgum. Although little difference in length, a functional LLD and tilted hips was found that lead to the left functioning as the shorter limb. On observing her walking (without her

stick), she had a definite tilt and unsteadiness of leaning to the left.

For the temporary insoles, I used PPT unbraided 1.6mm three-quarter insoles, onto which the SCF was added. The insoles were cut to size and 5mm SCF cobras were added to both insoles and a 5mm SCF heel raise added to the left. By the use of measured wedges, it was found that she seemed to be most steady at 6mm. The insoles were then fitted into the shoes and I had her walk up and down the corridor. "It doesn't feel quite right here," she remarked.

I then cut and reshaped the SCF until comfortable for the patient. I had the lady walk up and down the corridor again and she straightaway commented on how much steadier she felt. I educated the patient as to the importance of wearing the insoles as often as possible so as to get the maximum amount of benefit. An appointment was then made for three weeks' time, but I added that if there were any adverse effects, she should remove the insoles directly. I also asked her to note if there was any change in the onset, severity and duration of the pains.

On her second appointment I measured both feet: there was reduction by 1cm in the left ankle. The severity and duration of pain in the left knee had reduced. She had even forgotten about the pain in her right hip and the shin splints in both shins had been eliminated. Extra SCF 2mm cobra was added to the right to compensate for compression of the SCF in the previous three weeks. Extra SCF 2mm was added to left heel raise and a 5mm medial arch filler was also added to the left.

## ABSTRACT

Insole therapy when used correctly, where both feet and insoles fit comfortably into appropriate footwear, can lead to excellent patient compliance. Not only are the normal benefits experienced but secondary benefits occur, as illustrated by the case studies included.

At her next visit three weeks later, the left knee pain was hardly noticeable and then only intermittently; however she had developed a severe pain on the lateral side of the left knee. This pain was situated where the tensor fasciae latae, now termed the iliotibial band, inserts into the lateral tibial condyle. I reduced the medial arch filler. Measurements of the feet showed more reduction in oedema: right ankle, 27cm; arch, 26cm; left ankle, 26cm; and arch, 25.5cm.

Three weeks later, there was no pain at all. I made a template for the permanent insoles and fabrics chosen. These insoles would be ready in three weeks for fitting.

The final measurements were:

- right, no change from the previous visit;
- left ankle, 26cm; and arch, 25cm.

She commented: "I can now walk so much further, thank you!"

As this lady is a fairly recent patient I have not had the opportunity to perform the six-month review, although I have spoken to her by phone. So far, she has been compliant and has seen a continuation of the improvements in her 'quality of life'.

### Case Study 2

Male, 44 years, Caucasian fire-fighter who is an avid walker. Presently being seen by an osteopath for various pains. He referred this gentleman to me who complained of a painful left foot.

A full medical history was taken that included: right leg crushed (no damage) in 1978; right knee operation for cartilage removal in 1980; and right medial calcaneus steroid injection for pain in 1989. His pain chart was labelled with: left neck stiffness, left > right pain, distal shoulder blades; lower back left > right; pain in left buttock; left leg sciatic nerve pain; contraction of muscles in the peroneal

compartment; and Achilles' tightness.

The pain in his left foot involved the superficial peroneal and sural nerve.

There was a substantial LLD right < left by 1.5-2cm and short triceps in both legs. I felt that his muscle activity was quite wrong and that serious biomechanical abnormalities needed to be addressed.

The same routine was adopted as for Case Study 1.

On the first visit, three-quarter temporary insoles were cut and shaped. SCF 5mm cobras were added to both, plus a 5mm heel raise to left and 7mm heel raise to right. I spoke to him about possible shoe raises, and mentioned that he might develop some aches and pains due to the alteration of the use of muscles and joints. Again, I educated him as to the importance of compliance,

There were amazing results by his second visit. In his words, all the problems had improved by 80% in the first two weeks. He had developed some aching in the peroneal compartment and around the styloid process and medial arch, but by the second week these had disappeared

Extra D-fillers of 5mm were added to both insoles.

With the additions to his insoles, all pain - left foot, peroneals, sciatica, buttocks, lower back and both shoulder blades - had gone by his third visit. He added, that due to the height that the insoles had positioned his feet, he had removed them from his walking boots as the boots were rubbing on the top of his feet. The next day, the pains had all returned.

Templates for the permanent insoles were made and fabrics chosen, these were to be issued at his next appointment. When the insoles were removed the pain returned quite rapidly.

#### **NEW CLIENT COMMENTS ABOUT THEIR EXISTING INSOLES ON THEIR FIRST APPOINTMENTS**

"I had these insoles from Mr X but they seem to lift my feet too far out of my shoes so I don't wear them."  
"This is my second pair, my first pair hurt my feet and

these ones have caused blisters."

"Insoles don't work, I've had them before."

#### **REASONS FOR PATIENT NON-COMPLIANCE**

The reasons for patient noncompliance fall into four categories:

- Insoles unable to fit into the patient's shoes and no room for foot.
- The insoles are uncomfortable.
- The patients are apathetic to their insole therapy.
- Patient's lack of education on how, why and when the insoles should be worn.

If any of the above reasons exist then it seems futile to issue insoles. You can not expect a patient to wear their insoles, if they can not get their feet and their newly issued insoles into their everyday footwear, enabling them to walk in a comfortable manner.

#### **COMMENTS AND CONCLUSION**

Part of patient compliance will revolve around their type of footwear, so viewing their day-to-day shoes, work shoes or boots and trainers are a must. A second pair of insoles may be necessary for trainers unless the trainers are 'neutral'. In some cases I have been able to build up on the trainer's removable insoles. Occasionally, some minor adjustments to the permanent insoles are necessary. Patient comfort is paramount.

As can be seen from these case studies there are secondary benefits to the wearing of insoles.

From a large number of my patients where measurements of the ankles and medial arch have been taken, it can be shown that wearing corrective insoles, and correcting the biomechanics of the foot and lower limb, muscle activity can be reduced, resulting in reduced oedema. In some patients, sciatica can also be eliminated by reducing the pressure on the sciatic nerve

In conclusion, I would suggest that provided the patient is well educated as to why insole therapy is working to reduce/eliminate their pain, discomfort or problems, and that

accommodate both their foot and insole comfortably; there is no reason why patient compliance should not be extremely high.

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