One of the foot’s major abnormalities would be the “bunion”, this deviation of bone structure causing much pain and distress to many people.

The Hallux Abducto Valgus is thought to have 5 main etiologic categories:

1. muscle imbalance (Abductor Hallucis / Adductor Hallucis couple)
2. general ligamentous laxity
3. predisposing structural factors
4. trauma
5. mechanical factors leading to stress on the joint

The 1st Metatarsophalangeal Joint (1st MPJt) is often simply considered a hinge joint but as there is also the sesamoids articulating inferiorly with the sesamoid grooves within a single synovial joint capsule makes this structure slightly more complex than first thought.

The 1st ray is meant to plantarflex against the ground for both stability and toe off, if any abnormality is present then the foot is forced to compensate by either pronating to its end of range of motion or simply collapsing the structure, this places abnormal stresses upon the the 1st Ray and leaves the 1st MPJt in an abnormal position.

Pain can present itself after activity or in cases of severe irritation it can present during activity as well. Pain is usually situated on the exostosis itself or within the joint and is elicited by pushing on the joint or putting the joint through it’s range of motion (usually a decrease in both dorsiflexion and plantarflexion is noted). If this joint range is decreased then shoes with high heels can also aggravate the condition.

In these cases, treatment must be directed at the cause, and any of these modalities may have to be used to regain the foot’s integrity, they would include orthoses and supports, correction of shoe choice, and muscle reconditioning by exercises.

Treatment of Hallux Abducto Valgus (Bunions) is both simple and difficult, as the weaknesses that predispose for the deformity are, in my opinion, considered to be hereditary. The characteristics of the foot rarely corre-
spond to ideal structure and mechanics.

The following foot types are associated with Hallux Abducto Valgus:

1. Partially compensated forefoot varus
2. Compensated forefoot varus
3. Forefoot supinatus
4. Flexible forefoot valgus
5. Compensated congenital gastrocnemius equinus
6. Compensated transverse plane deformity

These particular foot types are more commonly seen and need to be treated to reduce symptoms.

Orthotic therapy can be very effective in treatment of this condition by restoring the normal foot function and reducing the abnormal pronatory forces that affect this problem.

The orthotics of choice vary with the degree of deformity and type of footwear the patient insists on wearing. In cases of severe pronatory compensations then the firmer orthotic control is necessary to stop further deformity and reduce pain. The rearfoot in almost all cases should be inverted with rearfoot posting to place the Subtalar Joint back into or close to it's neutral position. The forefoot alignment should then be taken into account and balanced correctly whether it be varus or valgus posting.

This is most important in the early stages of a hallux abducto valgus when the abnormal effect of the extrinsic and intrinsic foot muscles can be negated.

In the case of fashion footwear where space in the shoe is at a premium then a slimmer style of orthotic is necessary for fit but for maximum effect some firm arch fill or rearfoot posting is still necessary.

In severe cases of Hallux Abducto Valgus deformity in which the intermetatarsal angle has increased beyond 13 degrees, the ability of the orthoses to control the joint becomes less effective. In these cases some reduction of symptoms may occur but in general a more permanent solution becomes necessary. Surgical intervention is not necessarily advocated but in some cases it can be preferable than continuing to function with a severely painful joint that could possibly cause other compensations within the body. Surgery is designed to restore structural integrity but it sometimes does not address the functional integrity of the foot, this needs to be considered when prescribing a surgical procedure and post operative orthoses for restoring what ever functional element that is not addressed by the surgery is a good idea.

Intrinsic and extrinsic foot exercises are also important in the treatment of Hallux Abducto Valgus and these modalities mentioned in this discussion should be combined for best results.

References: