



# Orthotic Adjustment Guide

The ideal situation is one where a patient is experiencing pain, the practitioner prescribes an orthotic, this orthotic relieves their pain and everyone lives happily ever after. However, the need for tweaks and adjustments is not uncommon. This is the nature of creating a custom- made, handcrafted device that needs to be comfortable and biomechanically helpful all in one. Some complaints may be directly attributable to the orthotic device, and there may be visible signs of the problem. Others are symptomatic complaints, such as low back pain, etc.

We've collected and compiled feedback and information for nearly 50 years, and have put together a reference list of complaints, their possible causes, and some corrective considerations. Obviously, this list is not exhaustive and there are many additional factors that may contribute to patient non-compliance and discomfort.

If additional advice is required, Paragon's knowledgeable technical support team is available by phone or email anytime.

<b>COMPLAINT</b>	<b>POSSIBLE CAUSES</b>	<b>CORRECTIVE CONSIDERATIONS</b>
Lateral heel edge discomfort	<ol style="list-style-type: none"> <li>1. heel seat too narrow</li> <li>2. STJ "locked" in inversion, or restricted STJ motion</li> <li>3. rigid forefoot valgus not posted</li> <li>4. Orthotic is over-posted in rearfoot</li> <li>5. totally uncompensated foot function</li> </ol>	<ol style="list-style-type: none"> <li>1. widen heel seat</li> <li>2.a. remove rearfoot posts b. change type of orthotic</li> <li>3. post forefoot valgus</li> <li>4. reduce rearfoot post</li> <li>5.a. orthotic control is not required b. use shock absorbing material</li> </ol>
Lateral border edge effect	<ol style="list-style-type: none"> <li>1. as above in 2,3,4,5</li> <li>2. forefoot varus over-posted</li> <li>3. compensated equines deformity-uncontrollable</li> <li>4. patient not controlled- sliding laterally off device</li> <li>5. orthotics too narrow for foot</li> </ol>	<ol style="list-style-type: none"> <li>1. as above</li> <li>2. a. reduce post b. remove post c. preferably make new unposted device</li> <li>3. a. change of eliminate orthotic devices b. recast in pronated position</li> <li>4. a. increase rearfoot post b. recast in neutral position</li> <li>5. remake wide</li> </ol>
Jamming under first metatarsal head	<ol style="list-style-type: none"> <li>1. orthotic device is too long</li> <li>2. forefoot varus post is excessive or not indicated</li> </ol>	<ol style="list-style-type: none"> <li>1. shorten device</li> <li>2. reduce or remove forefoot varus post</li> </ol>
"Edge" effect under metatarsal heads	<ol style="list-style-type: none"> <li>1. orthotic device is too long</li> <li>2. leading edge is not beveled</li> <li>3. device is sliding forward/not seated in heel</li> <li>4. heel seat is too wide</li> </ol>	<ol style="list-style-type: none"> <li>1. shorten device</li> <li>2. bevel leading edge of device</li> <li>3. "break" heel counter</li> <li>4. Narrower heel seat</li> </ol>
"Edge" effect under metatarsal shafts	<ol style="list-style-type: none"> <li>1. device is too short</li> <li>2. forefoot post is too thick</li> </ol>	<ol style="list-style-type: none"> <li>1. a. remake orthotic b. add topside extension</li> <li>2. thin down post</li> </ol>
Unremitting pressure at calcaneal inclination arch (proximal longitudinal arch)	<ol style="list-style-type: none"> <li>1. device made from supinated casts</li> <li>2. patient has compensated equines condition</li> <li>3. forefoot balancing on cast is excessively thick</li> </ol>	<ol style="list-style-type: none"> <li>1. remake from neutral position casts</li> <li>2. a. eliminate device b. use more flexible type</li> <li>3. a. rework casts b. remake device</li> </ol>
Longitudinal arch discomfort/medial border "edge" effect	<ol style="list-style-type: none"> <li>1. patient has compensated equines deformity</li> <li>2. genu valgum (knock knees)</li> <li>3. weak, absent or ruptured posterior tibial muscle</li> <li>4. unnecessary forefoot varus post</li> <li>5. device is overposted in the rearfoot</li> <li>6. device is underposted in the rearfoot</li> </ol>	<ol style="list-style-type: none"> <li>1. a. reduce rearfoot post b. remove rearfoot post c. recast pronated and remake device d. use more flexible type e. eliminate device</li> <li>2. a. extend forefoot posts medially b. buttress shoes medially c. extend heels of shoes medially and buttress</li> <li>3. a. as above 2 b. overpost the rearfoot</li> <li>4. a. remove post b. remake device using new neutral casts</li> <li>5. reduce rearfoot post</li> <li>6. increase rearfoot post</li> </ol>

<b>COMPLAINT</b>	<b>POSSIBLE CAUSES</b>	<b>CORRECTIVE CONSIDERATIONS</b>
Calf muscle discomfort	<ol style="list-style-type: none"> <li>1. compensated equines deformity</li> <li>2. acquired calf muscle shortening</li> </ol>	<ol style="list-style-type: none"> <li>1. a. lower longitudinal arch b. change to flexible type c. apply heel lift d. eliminate device</li> <li>2. add temporary heel lift</li> </ol>
Achilles tendonitis/strain	<ol style="list-style-type: none"> <li>1. supinated cast/orthotic device</li> <li>2. excessive rearfoot post</li> <li>3. acquired calf muscle shortening</li> <li>4. forefoot equines</li> </ol>	<ol style="list-style-type: none"> <li>1. make new device with neutral position casts</li> <li>2. reduce rearfoot varus post</li> <li>3. add temporary heel lift</li> <li>4. add permanent heel lift</li> </ol>
Knee pain- medial side	<ol style="list-style-type: none"> <li>1. unnecessary or excessive forefoot varus post- patient sliding over orthotic and over-pronating</li> <li>2. excessive rearfoot post- causing same action as above</li> <li>3. equines deformity and early genu recurvatum</li> </ol>	<ol style="list-style-type: none"> <li>1. remove or reduce forefoot varus post</li> <li>2. reduce rearfoot varus post</li> <li>3. a. remove rearfoot post b. change to flexible device c. eliminate device</li> </ol>
Knee pain- lateral side	<ol style="list-style-type: none"> <li>1. excessive rearfoot varus post with no or inadequate pronation grind off</li> <li>2. orthotic device is too controlling</li> <li>3. failure to post of rigid forefoot valgus deformity</li> </ol>	<ol style="list-style-type: none"> <li>1. a. reduce post b. increase pronation grind off</li> <li>2. a. reduce or remove post b. change to flexible type c. lower longitudinal arch d. pronate cast and remake orthotic device</li> <li>3. a. add forefoot valgus post b. remake device and post forefoot valgus</li> </ol>
1st MPJ pain	<ol style="list-style-type: none"> <li>1. reduced range of hallus dorsiflexion due to hallux limitus</li> <li>2. unnecessary forefoot varus post</li> <li>3. patient not controlled- sliding laterally off devices</li> <li>4. erroneous Morton's extension</li> </ol>	<ol style="list-style-type: none"> <li>1. orthotic device if effective- add rocker bar to shoes</li> <li>2. a. remove post b. preferably recast and remake device</li> <li>3. a. pronate cast b. reduce posting c. serial posting d. lower long arch</li> <li>4. remove extension</li> </ol>
Plantar fascial pain	<ol style="list-style-type: none"> <li>1. cast supinated</li> <li>2. cast preparation faulty- arch too high- balance platform too thick</li> <li>3. compensated equines deformity</li> <li>4. acquired calf muscle shortening</li> <li>5. rigid foot type</li> <li>6. unnecessary forefoot varus post</li> </ol>	<ol style="list-style-type: none"> <li>1. recast and remake device</li> <li>2. rework casts and remake</li> <li>3. a. add heel lift b. reduce long arch c. use more flexible type d. eliminate devices</li> <li>4. add temporary lift</li> <li>5. a. use flexible/soft type b. eliminate devices</li> <li>6. a. remove post b. recast and remake device</li> </ol>
Tibial sesamoid pain	<ol style="list-style-type: none"> <li>1. unnecessary or excessive forefoot varus</li> <li>2. excessive rearfoot posting- patient sliding off device</li> <li>3. medial distal edge of device is too long</li> </ol>	<ol style="list-style-type: none"> <li>1. remove or reduce post</li> <li>2. reduce post</li> <li>3. cut back medial distal edge</li> </ol>
Popliteal area pain	<ol style="list-style-type: none"> <li>1. compensated equines deformity and early genu recurvatum</li> </ol>	<ol style="list-style-type: none"> <li>1. a. reduce control b. lower long arch c. add heel lift d. use more flexible type, or e. eliminate devices</li> </ol>

## Notes