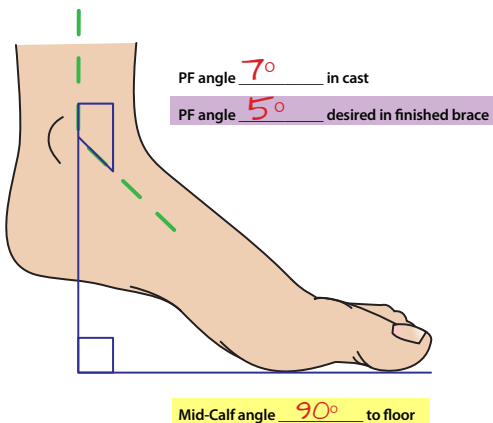


R1/R2 and High Tone Brace Planning

To avoid overstretching and/or triggering spasticity in your patient, optimize your DAFO to accommodate range of motion limitations. Provide precise specifications on your order form, using the information below as a guide.

The illustration and guidelines below are provided to help you fill out the corresponding areas of the order form shown on the right:

1. Decide the planned brace position at the ankle (*this may differ from the angle captured in the cast*).
2. Determine the mid-calf angle as it relates to the floor. Measure the DF/PF angle at mid-calf. This will give us the information we need to build a wedge under the brace that meets your specifications. Ask for this in the Special Instructions section of the order form.



For questions, ask Customer Support:

800.848.7332

customersupport@dafo.com

CASCADE dafo		Cascade Dafo, Inc. 1360 Sunset Ave, Ferndale, WA 98248 ph 800-848-7332 intl +001 360 543 9306 fax 877-856-2160 www.cascadedafocom		DAFO Turbo PF block, DF block	
Construction • Features • Options					
<small>NOTE: If you don't choose an option, you will receive the Standard.</small>					
Posterior Height: <input type="checkbox"/> % to % of leg length <input type="checkbox"/> Standard <input type="checkbox"/> Specify: _____ <small>* Cast height must be greater than brace height *</small>					
Padding: Shaded areas above are Standard <input type="checkbox"/> Add extra navicular padding (boney pronators only)					
Padding Color: <input type="checkbox"/> White Standard <input type="checkbox"/> Other: _____					
Straps: Standard (see drawing) <input type="checkbox"/> Add toe abduction strap <input type="checkbox"/> Add D-ring/pad to anterior strap					
Strap Color: <input type="checkbox"/> White Standard <input type="checkbox"/> Other: _____					
Instep Strap Pattern: <input type="checkbox"/> No pattern Standard <input type="checkbox"/> Other: _____					
Transfer Pattern: <input type="checkbox"/> No Transfer Standard <small>(Outer frame only, additional cost per brace)</small>					
<input type="checkbox"/> Pattern: _____ <input type="checkbox"/> Provide Own Pattern					
Toe Shelf					
Outer Frame: <input type="checkbox"/> Standard Trimmed at distal to meet heads under plantar surface <input type="checkbox"/> Trimmed just proximal to met. heads under plantar surface <input type="checkbox"/> Full length under plantar surface (for crutching)					
Inner Liner: <input checked="" type="checkbox"/> Flexible — no containment Standard <input type="checkbox"/> Medial containment: <input type="checkbox"/> Soft foam (flexible) <input type="checkbox"/> Plastic <input type="checkbox"/> AND/OR <input type="checkbox"/> Lateral containment: <input type="checkbox"/> Soft foam (flexible) <input type="checkbox"/> Plastic					
Special Instructions <div style="border: 1px solid black; padding: 5px; background-color: yellow;"> Add heel wedge to bring mid-calf angle to 90° </div>					
<input type="checkbox"/> Rush order (adds \$25)					
Thank you!					

Some background information about R1/R2 brace planning:

Some clinicians believe, in order to avoid triggering spasticity, it is important to avoid over-stretching. When planning the DF angle of a brace, these clinicians recommend stopping at R1. R1 stands for "resistance-1," meaning the initial velocity-dependent "first catch" of muscle resistance.

When this theory is put into practice in patients with high tone excess PF, you might find that R1 is actually a PF position, perhaps -5 to -15 degrees. If we set the brace there, the patient will need to compensate in one way or another to be able to stand and/or walk. We don't want the patient to compensate by hyperextending at the knee, or leaving a space below their heel and the ground, so we bring the ground up to meet the patient by adding a wedge of material between the bottom of the brace and/or shoe and the ground, bringing the tibia-to-floor relationship to 90 - 3 deg. This way, the patient can still feel the ground reaction that will start the chain of events telling them where they are in space, and what reaction or motion should follow. Through regular use, the intent is for the patient to experience significant improvement to ROM at the ankle.

Other clinicians believe that within the pediatric population, R2 ("resistance-2") is a better place to start. R2 represents the position beyond the first catch, getting to the patient's maximum end-range through a slow and steady stretch. Setting the brace in this position in a high-tone pediatric patient may or may not still require some wedging, but it will be less than the R1 setting. The intent here is, through regular use, the patient's range may quickly catch up to the angle set in the brace without the difficulty and extra expense involved in managing a brace that requires wedging and may quickly become too plantarflexed as progress is made.

Nuanced approaches to these theories can also be employed by choosing an ankle angle brace setting between R1 and R2 or by using a flexible or adjustable brace design.

No matter which theory the clinical team is working with, Cascade Dafo can help. Simply communicate with us through the specifications on your order form as shown above, and we will fabricate the brace the way you want it.