

DO I NEED A CUSTOM BRACE?

Custom molded means molded from a patient model taken from a cast of the patient's leg. How was it molded? Were the muscles flaccid or contracted? Was the patient standing, sitting, or lying down? The leg changes shape when muscles are contracted, extended, or flexed compared to a flaccid condition. The shape also changes when standing compared to sitting or lying down.

No amount of custom molding will permit proper fit if a brace is too stiff. If the brace cannot conform to the changing leg, it will only fit when the leg is in the same condition as when molded. The deviation between the moving leg and the brace can be considerable. If the brace design is too stiff, custom molding may not be the answer!

We do not purchase custom shoes. We buy them off-the-shelf. If they fit, we wear them. Most shoes are flexible enough to permit changes in foot shape, but provide the support necessary for sports activity. We would not wear shoes made of carbon fiber. They would be too stiff to permit foot movement or comfort. The same is true of braces. A brace must be stiff enough to provide support and proprioception, but flexible enough to adapt to the changing leg shape.

Modern technology allows us to fit the majority of patients with off-the-shelf braces. Our experience has shown that more than 90% of patients can be fitted comfortably off-the-shelf. The brace must simply be flexible enough to adapt to variations in leg shape during movement and rehabilitation. This also means that the construction materials are extremely important. It must be lightweight, strong, a little flexible, and capable of being formed into the proper shape of a leg. It must also be capable of being reformed as the size and shape of the patient's leg changes. The cost of re-molding most custom braces often exceeds the initial price of off-the-shelf braces.

Custom braces are not always custom-made. Bledsoe Braces Systems offers a custom forming service for our functional braces. Our metal alloy braces are hand fit to a cast that is provided by the customer. Only two or three other companies in the

market currently make true custom-made braces. The remaining companies utilize tracing or measuring equipment to manufacture braces that approximate the shape of the leg. Some of these companies use off-the-shelf components assembled in a semi-custom fashion, but they still charge a custom price!

It is ultimately the design, the materials, the strength, the flexibility, and many other features that determine whether a given brace will fit properly on the patient. Simply making it custom does not guarantee proper fit. Likewise, simply pulling a brace off-the-shelf will not guarantee proper fit. If the brace fits, wear it!

There is a difference!

The difference is in the details!