

## The ABCs of AFOs

An AFO, or **Ankle Foot Orthosis**, is a brace that restores as close to normal gait as possible, whether just for walking or for higher levels of activity like hiking, running or cycling. AFOs are intended to help overcome biomechanical deficits caused by muscle or nerve damage in the lower extremities, such as foot drop, neuropathy and dystonia.

There are many benefits to wearing an AFO, not the least of which is restoring overall confidence and quality of life. More specifically, an AFO will help to:

- Prevent/correct damage caused by inefficient gait
- Reduce pain from uneven weight-bearing forces
- Assist balance
- Support better posture
- Reduce the chance of tripping & falling
- Restore proper gait mechanics
- Reduce fatigue
- Reduce energy cost of activities
- Reduce rate of muscle atrophy
- Promote higher levels & duration of activity

## The 3 BASIC Categories of AFOs

### CUSTOM:

Most often a **Custom AFO** begins with a cast or 3D scan of the lower leg, foot and ankle. Using that cast or scan, a brace is designed—most often from **rigid, thermoplastic materials**— to fit the exact anatomy. An orthotist may then make additional modifications before the final fitting for optimal comfort.

### OFF-THE-SHELF, PREFABRICATED:

**Off-the-shelf, Prefabricated (“Prefab” for short) AFOs** are manufactured in quantity without a specific beneficiary in mind. Prefab AFOs come in varying designs and sizes and meant to be worn mostly “as is”. Usually these braces are made from a combination of materials, including metals, carbon, leather, Kevlar, plastics and industrial fabrics. They are not individualized to the end-user but rather are designed for ease of fit and use by a large variety of users. Due to convenience and cost, Prefab AFOs are often preferred by end-users when compared to the limitations of Custom Plastic AFOs.

### CUSTOMIZABLE PREFABRICATED SHELLS:

Lastly, there is a category of AFOs that combines the best of Custom and Prefab options: **Customizable Prefab “Orthotic Shells”**. These are also mass manufactured in varying designs and sizes but are intended to be customized to the individual when being fitted by a certified orthotist. They are made from the same combination of materials as Off-The-Shelf Prefab AFOs, but an additional level of overall function and fit may be achieved utilizing a wide array of customization options.

Common customizations include, but are not limited to, the following:

- Trimming of footplate or anterior shell
- Using interface liners between brace and skin for added comfort &/or function
- Lateral/medial posting of brace
- Adding custom orthotic inserts
- Adding metatarsal pads or heel wedges
- Offering different strap options for ease of use and comfort

**IMPORTANT TO NOTE:** For most of us, when we think of something labeled as “custom” or “custom-made” we generally think of these items as having added value. This is not necessarily the case when it comes to the field of Orthotics. *“Custom” does not necessarily mean “better”; rather, “customizable” often means more options for optimal comfort AND higher levels of function.* All 3 categories above can be customized to a certain degree, but it is important for you to understand any limitations when determining which option may be best for you.

### AFOs Styles

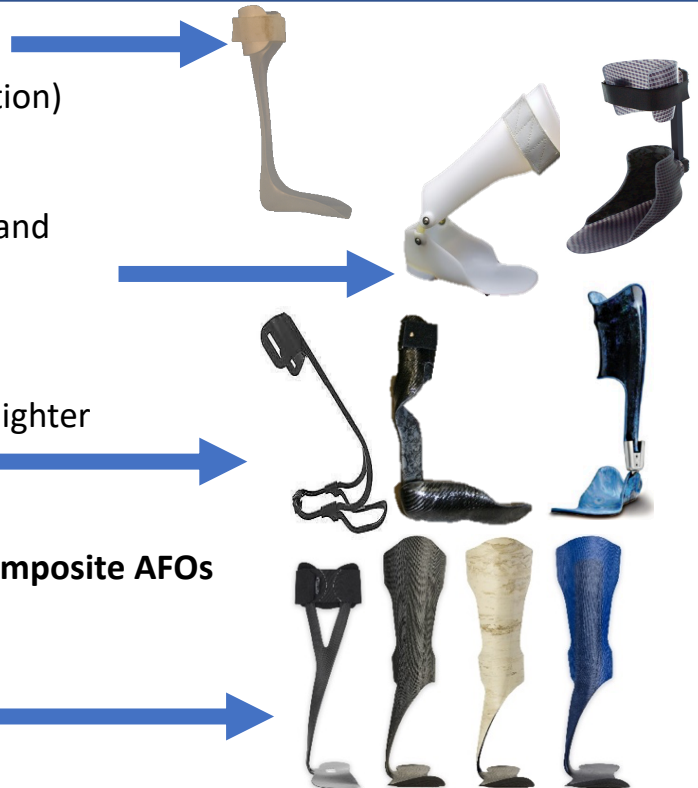
The number of AFOs available today is staggering, and to make things more complicated there is no universal terminology when naming basic AFO styles. That said, there are four generally accepted categories—see below, with just a few examples included. Most AFO models fall into one of these groups based upon overall design and biomechanical properties:

**Static AFOs** - usually solid, semi-rigid plastic  
(immobilizes the foot and ankle in neutral position)

**Dynamic AFOs** with articulating joints  
(immobilizes the foot but allows some flexion and extension of the ankle)

**Static - Dynamic carbon/composite AFOs**  
(benefits can be similar to above AFOs, often lighter weight & offering more range of motion)

**Dynamic Response, Floor-Reaction carbon composite AFOs**  
(with individualized fitting these can offer all benefits above *with the additional benefit of ground-reaction, propulsive-assist*)



## How Do I Know Which Brace is Right for Me?

The most important lesson to understand in bracing is: **There is no ONE brace that is right for EVERYONE.**

Generally, you'll want to look for the **least restrictive brace** that still **addresses your specific needs** in order to:

- Ensure the most muscle & joint activity and range of motion for high functionality
- To discourage muscle/nerve atrophy by utilizing more of your own power.

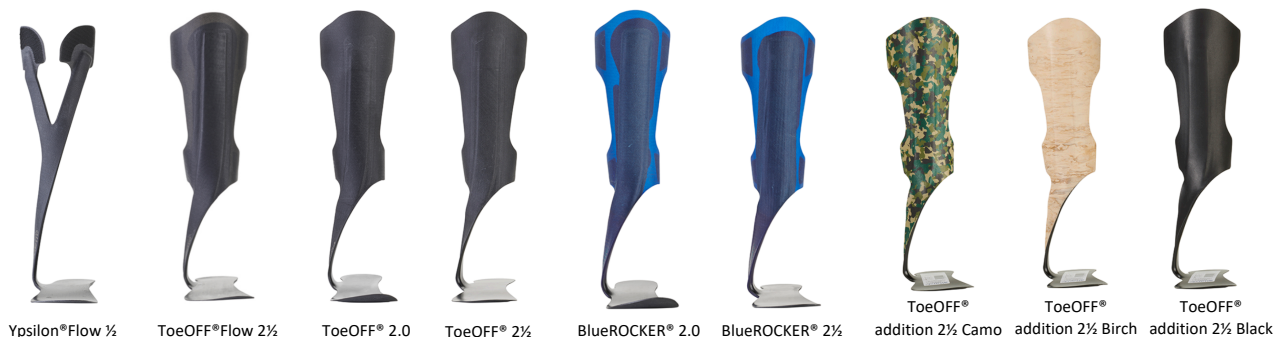
Also, look for braces that are the **MOST comfortable and MOST functional for YOU**

- You're not likely to wear a brace that isn't comfortable
- You want a brace that performs well for the activities most important to you
- If a brace feels "uncomfortable" at first, it may lead to more serious issues after long-term use

Finally, if possible, **TRY before you BUY.** Ask about manufacturers that allow a trial or testing option because with insurance coverage often a challenge, you don't want to get stuck with the wrong brace.

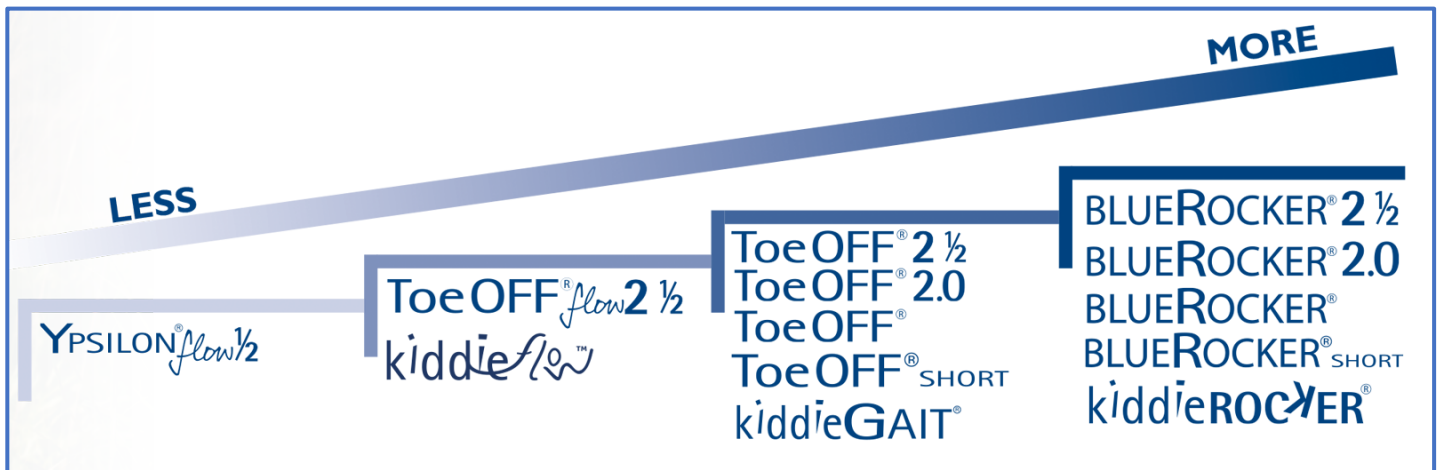
**Did you know?** With recent changes in the insurance industry **you may have to wait 5 years** before you can be reimbursed for a different AFO!

### About Allard AFOs



Allard USA is the industry leader in carbon composite AFOs. What sets Allard AFOs apart from other AFOs are these unique features:

- **The anterior design** extends up from footplate onto front of leg to avoid pressure on the calf & Achilles.
- **The lateral strut** is on the outer side of the footplate to create stability and function.
- **The shin plate** provides for a more **comfortable** design for the user.
- **The extreme thinness** of the product makes it light and almost invisible under slacks or trousers.
- **The dynamic footplate, unique layup, and shape** contributes to a more dynamic, functional, and fluid gait pattern.
- The thinness of the footplate often allows brace to **fit in the shoe** without going up a shoe size.
- Made of carbon fiber, fiberglass and Kevlar® they are extremely **lightweight yet structurally superior.**
- **The open heel** allows for greater range of motion to achieve more normal gait, eliminates pressure on Achilles, calf & heel.
- Each style of Allard AFO has a **different level of rigidity** to accommodate multiple levels of involvement.
- Offers one of the most **generous Warranties** in the industry and **30-Day Patient Satisfaction Guarantee**
- To accommodate different needs, Allard's sizes & products are **graded in stability & dynamic response:**



In addition to the unique design and superior manufacturing of Allard AFOs, there is one more thing that sets Allard apart from other brace makers: *a loyal following of brace wearers with personal, non-paid endorsements* regarding how Allard AFOs have changed lives for the better.

Please visit [www.getbackuptoday.com/category/inspiring-stories/](http://www.getbackuptoday.com/category/inspiring-stories/) to read more!

### Summary

- Deciding upon an AFO is a personal decision that should be made in partnership with your orthotist. *Don't feel pressured into a brace that you aren't happy with* – speak up, do your research and be your own best advocate.
- *“Custom” doesn't always mean “Better”* when it comes to AFOs; hard plastic, custom-molded plastic braces may not offer as many benefits as “Customizable” options
- *It's important to remain as active—and ambulatory—as possible* for as long as possible; studies show that life expectancy can go down with wheelchair dependency so an AFO can help extend your quality of life.
- Finding the right AFO may seem daunting at first but *there's never been a better time than now to be a brace-wearer!* From marathoning to mountain climbing – including all of the joys of daily activity - people living with mobility issues are discovering renewed quality of life thanks to their AFOs!