

## Orthotist AFO information

Deciding which type of foot support to use in the TAOS depends largely on the needs of the child and somewhat on the preferences of the orthotist and therapist. We see a variety of ankle and foot supports chosen by orthotists and therapist, such as regular shoes/special shoes, SMO/DAFO, convertible/articulated, AFO/solid ankle, and AFO/floor reaction. All types of support work with the TAOS.

Generally, we want to have the child in proper alignment to promote joint health during weight bearing. Our foot plate mounted in a shoe will provide an adjustable plantar flexion block, and it will also limit pronation/supination. However, the control of the foot is limited by the ability of the shoe to hold the foot. Most shoes are fairly poor at orthopedic control. To accommodate this we have to look at the particular needs of each child. The less stability the child has, the more control we want to provide. Often the more support we provide the less feeling and feedback they have during gait. Here are a few guidelines based on children we have seen, in the order of least control to most control provided.



- When I see a patient I know nothing about, I have him stand to see his tendencies. If he bears weight and has proper foot position, no AFO is needed. I will mount the foot plate in a cool-looking **shoe** of his choice (or mine.)



- If I see some instability with reasonable positioning and a little plantar flexion we may get away with a **high top shoe/boot**. It is important to offer motion at the ankle to allow him to strengthen the joint as long as we do not allow him to negatively affect proper body alignment.



- If his ankle shows supination or pronation, an **SMO** offers the next level of support, while still allowing for movement of the joint. I would choose a high-top or low shoe in this instance.

- If a patient has too much plantar flexion or medial-lateral instability, a high-top shoe may not be enough to keep the heel in the shoe. In this case, an **articulated AFO** can offer a more advanced level of support.



- Some kids are so strong and/or out of alignment that a **solid ankle AFO** is the only choice.

- Some therapists get good results with **floor reaction orthotist** for children who walk with a crouched gait and have no knee or hip flexion contractures

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I wish I could tell you precisely what to use for all children with CP, but like all of us, they have highly individual needs and cannot fit conveniently into categories. As such, they must be considered individually for the best results. Here are a few miscellaneous tips to consider when fitting:

- Keep in mind that you also need to consider management of the forefoot for neutral positioning.
- Children who are currently using AFOs can continue to use them in the TAOS. The AFO a child is in today can be used and later changed for better gait she progresses.
- Some children have an AFO for ambulating and one for use during the rest of the day/night.
- Some shoes are easier than others to mount the TAOS foot plate.

And last, many families have a desire for more fashionable footwear. A child who can get control from the AFO system alone will have more choices in shoes. There are many possibilities for control of the foot based on the various combinations of shoe and orthotic support. When you combine the expertise of both the orthotist and the therapist, and choose the proper foot support, the TAOS can accommodate a variety of highly individual needs.