

An ankle- foot orthosis (AFO) can contribute to push-off during walking by storing energy from heel strike in the rigid strut and subsequently returning force during push-off. Peripheral artery disease (PAD), a manifestation of systemic atherosclerosis, blocks the arteries supplying blood to the legs and causes muscle pain and weakness, which leads to difficulty walking. Wearing an AFO can help patients with PAD walk better. In our study, subjects decided whether to adopt or not adopt the AFO. Our goal is to assess early AFO intervention withdrawal (wAFO) and AFO intervention completion (cAFO). Participants (n=21) were recruited and consented to wear an AFO for three months. The subjects were assessed for early AFO intervention withdrawal (n=6) and completion (n=15). Semi-structured interviews were conducted, and data were analyzed using a summative content analysis approach. Only six of fourteen of cAFO subjects described their initial reactions to the AFO as negative versus three of six wAFO subjects. The wAFO group reported higher levels of physical discomfort with the use of the AFO (4/6 vs 7/15) and pre-existing health issues as a barrier to the use of the AFO (3/6 vs 5/15). Patients withdrawing prior to completion of the AFO intervention tended to have increased negative perceptions, comorbidities, and physical discomfort. Both groups reported positive aspects of the AFO such as ease in standing and walking. Subjects that consented to follow up after six months of AFO intervention answered semi-structured questionnaires and a survey based on the i-PARIHS framework.