



ORTHOTIC AND PROSTHETIC SERVICES

A Step Ahead

July/August 2006

Case Study

I recently had an exceptionally interesting case that I would like to share with you.

The 19 year old male patient is a bilateral below the knee amputee; a result from complications of hemophilia and the health care that was available to him. His knees auto fused in a bent position as a result of sitting in a wheelchair for several years. He continues to have issues with bleeding in his joints, and has struggled with pain in his left shoulder, most likely due to the strain of motoring his wheelchair.

The added stress of putting him in bilateral sockets and bearing weight on his knees was a concern to the rehabilitation team. Instead of placing him immediately in sockets, it was decided to use a modified set of orthoses to determine if the patient could tolerate weight bearing on his knees. After modifying the or-

thoses, and several weeks of therapy, it was determined that the patient could be placed in a bilateral prostheses.

The rehabilitation team decided that a modified bent knee socket would be fabricated to allow the patient to easily don the prostheses from the seated position. This was done by fabricating posterior doors in the sockets, using Velcro closures, to provide some compression once the patient was in the prostheses. This keeps the patient from bearing all his weight on his knees. A soft foam interface was also added to provide cushion to the joints to prevent the possibility of pain or bleeding in the joint as a result of excessive pressure. An ischial seat was also provided to off-load some of the weight on the joint.

Loren's Lines

The recent birth of my first child has delayed the July/August issue of A Step Ahead.

As I have reflected on the events that surrounded Mallory's birth, I have been reminded of how easy it is to go through life assuming that things will always go as expected.

Fortunately, my daughter is healthy and her birth took place without any surprises. However, life does not always go that way. Everyday, I meet with people who are either in the middle of, or at some point have experienced an unexpected event in life. Losing a limb, hurting a knee or back are not planned events.

When a patient comes to see me, it is my desire to help him/her deal with not only the physical issues, but also the emotional issues.

I am by no means a therapist or psychologist, but part of my job is listening to the patient. Many times the patient, parent or spouse needs the oppor-

tunity to talk so they can be reassured that their feelings are normal and that others who are in similar situations go through the same kind of emotions.

Helping an amputee from the patient's perspective is often more than just fitting them with a high quality prosthesis. It is helping them through the whole process and experience. By doing that, the patient is more successful. They will not just walk better, they will live better.

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Case Study Continued

In choosing components that would make up the rest of the prostheses, the team decided that stability would be the main focus. The patient had not stood or walked for several years, so balance and strength were the main concerns. Four bar knees with extension assists were the best choice in this case. They provide a high level of balance and a feeling of security for the patient. The knees remain locked until the patient places a load on the toe, giving him a safe feeling during stance and gait.

Since the patient is bilateral, we were able to control his height. We opted to start conservative by making him slightly shorter than he would have been for his age and size. The team felt this would allow the patient the opportunity to get accustomed to the prosthetics and walking, and provide the opportunity to work on his balance.

Since fitting this patient with his prostheses, he is walking outside of parallel bars. He is using canes to assist him, and in a pinch he can walk unassisted. He is requesting that the prostheses be made taller to be more similar to someone who is his age.

The treatment plan crafted by the rehabilitation team, combined with the determination of



the patient, have proven to be a success. The success in ambulating with the modified bent knee style prostheses will open some doors for future treatment options.

Difficult cases, such as this one, present the opportunity to provide the patient with a quality of life they may not have thought possible. It has been an exceptionally rewarding process so far, and I look forward to seeing this young man continue to walk and accomplish any goal that he sets his mind to attaining.