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About This Publication

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Soroya Guzman, P.A.C.E.'s first beneficiary of prosthetic assistance.

Help P.A.C.E. Help Soroya

Soroya Guzman is a 23 year old from Puebla, Mexico. She has aspirations to open her own beauty salon someday and to start a family. She was born with Proximal Femoral Focal Deficiency (PFFD) bilaterally. PFFD is a congenital anomaly of the pelvis and the femur which causes hip deformity and shortening of the lower extremity. But PFFD hasn't caused Soroya to shy away from her dreams!!

Soroya met Tony when she was nine years old. She was looking for assistance in obtaining new prosthetics as she had outgrown what she wearing. Tony made some adjustments to her prostheses, but was unable to provide new ones gratis. He recommended that she approach the Shriner's Organization for help. The Shriner's did provide Soroya with prosthetics until she was 18 years of age. Now, at 23, she is no longer eligible for assistance from the Shriner's, and is once again looking for help.

To date, Tony has provided Soroya with adjustments, a knee, a foot and a prosthetic belt. She still needs much more. We would like Soroya to become P.A.C.E.'s first success story. We are asking for donations of money and/or

prosthetic componentry so that we may continue to help Soroya. Please send any donation to the address listed on the front of this newsletter in care of P.A.C.E.

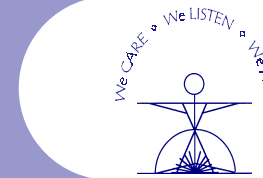
Soroya likes to dance and lead as active of a lifestyle as any 23 year old would. Let's help her continue to move toward her goals!



A view of the current prostheses that Soroya is wearing.

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The Amputee Advocate

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Welcome Our New Non-Profit – P.A.C.E. !!

Justin Norton, owner of Ability Prosthetics, prosthetist, and amputee, has created a non-profit foundation. This foundation, called **P.A.C.E.**, or **Prosthetic Abilities Center of Excellence**, was created to provide *recreational benefits to the disabled that they would otherwise be unable to obtain.*

Currently, there is a gap in coverage by Medicare and most H.M.O.'s with regard to recreational prosthetics and adaptive sport equipment. This means that water prosthetics and the like are not being provided, and subsequently have to either be purchased privately or not at all.

P.A.C.E. is committed to providing equipment, support and recreational instruction not only to

amputees, but also to stroke victims, paralyzed veterans, and people with a range of other disabilities.

Justin and Ability have been involved in adapting sport equipment and medical devices for quite some time now. Justin has worked with a variety of disabilities including stroke and quadruplegic persons. He has helped to create numerous sport prosthetic devices for amputees, and, as an amputee himself, understands the need and benefit of making these recreational benefits available to everyone.

As **P.A.C.E.** is a brand new foundation, we are still trying to "spread our wings" so-to-speak, and make ourselves known amongst the wealth of

other foundations currently in operation. Therefore, we are making a call for donations. These donations, which can be monetary or in the form of prosthetic componentry, are tax deductible, since **P.A.C.E.** is a non-profit foundation. Please help **P.A.C.E.** to provide instruction, help, hope and adaptive devices by mailing your donation to:

P.A.C.E.
12936 Carmel Creek Rd.
#60
San Diego CA 92130

Thank You for your assistance!!

"P.A.C.E is dedicated to providing recreational benefits to amputees & the disabled that they would otherwise be unable to obtain".



In 1994, motorcycle enthusiast Newt Harris was enjoying a ride up Highway 101 through the redwoods. He recalls there being a lot of road construction along the highway, and taking a left-veering curve in the road when he saw a big oncoming truck that was swerving out of its lane. Newt and the truck collided at about 70 m.p.h. in a head-on collision. Newt's leg was severed

through the knee, and he suffered eighteen broken bones in his hand.

Approximately four to six weeks after a ten day stay in the hospital, Newt was fit with his first prosthesis. He has been fit with five prostheses since. Newt says his prosthetic sockets were miserable for the first four years. Then he found Justin and was fit with Justin's signature socket, and here, Newt says his whole prosthetic experience turned around.

Newt is currently wearing an ultralight prosthesis with a Seattle Lite Foot and an Endoflex ankle. He says this leg is very comfortable and

Newt Harris

functional for his work and pleasure endeavors.

Being an amputee has not deterred Newt from continuing to enjoy motor-cycles. He has been riding for forty-five years now, and has been a Harley Davidson enthusiast for twenty-five years. He still rides in rallies—most recently up to Bridgeport, CA and soon again to Kernville. He has twice made the infamous trip to Sturgis, MI—a whopping 6000 mile trip made in two weeks!! He says a lot of motor-cyclists are surprised to see him riding as an amputee, but we think it exemplifies Newt's determination and

The "C" Leg

Wow!! Justin has said for awhile now that "This is the best of times for prosthetics". Now, with the advent of the "C" leg from Otto Bock, this statement has been more than proven.

The "C" leg was created for Above-Knee amputees. It is an electronically controlled prosthesis, similar in concept to the Utah II electronic arm that we profiled in last year's newsletter. This prosthesis is the first for the lower limb to be completely microprocessor controlled. There are electronic sensors onboard that collect real time data to control stance and swing phase movements of the knee. This is a

Quantum leap forward in prosthetic technology because this system offers the closest possible approximation to natural gait. Because of the sensors and microprocessor, it actually becomes unnecessary to concentrate on walking. Through individual adjustments during the fitting of the prosthesis, the electronically controlled hydraulic knee unit can be interfaced with a personal computer so that the patient has complete control over the all of the settings of the leg. The "C" leg can automatically adjust to varied conditions such as walking down a ramp, climbing stairs or traversing over uneven terrain.



Otto Bock's new "C" leg. This is the first electronically controlled prosthesis available for lower limb amputees.

PATIENT NEWS

passion in all that he does.

Newt has been a cabinetmaker for thirty years, and 18 years ago, started his own company, Bristol Cabinets. He feels no limitations from his prosthesis, and said he feels fortunate to have found a prosthetist that

"When I found Justin and Ability, my whole prosthetic experience turned around"

understands his needs and has comfortably fit him.

Newt is currently being fit into a new type of prosthesis—one with a Pathfinder foot and a Mauch "Gait Master Jr." hydraulic driven knee unit. With this new type of prosthesis,

not only can Newt completely control and adjust how he would like his foot to respond, he can also adjust the knee from anywhere between a locked position to free-swing.

In our last newsletter, I asked another client, George Bourus, how he responded to the Pathfinder foot, and it was very positive. Newt describes this new system as "very comfortable"! Newt says that this Pathfinder foot "is more stable and maneuverable, and I don't feel afraid to move around on it". Newt already took a 150 mile road trip on his Harley with this new prosthesis and he says he is very pleased in all aspects.

Please see our profile of the Pathfinder foot on page seven to learn more about it. We would love to help you find out if the Pathfinder is right for you!!



Newt shows off his new prosthesis which contains a Mauch hydraulic knee unit and the new Pathfinder foot.

CUTTING EDGE

These automatic adjustments reduce the need to compensate with the other limb. Essentially, this prosthesis makes movement & walking easier & more natural.

Ability is pleased to announce that Justin underwent extensive and rigorous training just a few weeks ago to become certified to fit amputees with this new technology. We are one of only a handful of companies in California that are now equipped with the knowledge and training required for the "C" leg. We encourage amputees to inquire about this exciting prosthesis.

The Otto Bock C Leg is the first completely microprocessor controlled prosthesis for the lower limb.

The "Pathfinder" Foot

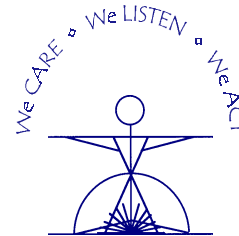
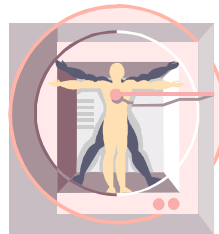
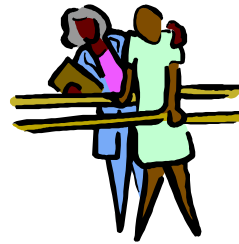
This year, Ohio WillowWood also unveiled a new product. Pictured to the right is their new foot system, the "Pathfinder". This foot is the first to be made commercially available that amputees can adjust themselves. It is spring designed so that there is energy return, reducing daily fatigue. It has an adjustable pneumatic heel spring and also toe spring options to provide amputees with the freedom to adjust pressure levels for different activities. You can increase the pressure to provide a "stiffer" response and lessen it when needed. This system provides extraordinary balance and comfort on any type of terrain or surface, enabling amputees to do more than they ever thought possible.

Justin explained that "Usually we have to align a prosthesis from the foot on up to compensate for the foot action. The Pathfinder allows for a huge range of align-



Ohio Willowwood's "Pathfinder" foot

ment, and allows us to align the prosthesis along more normal anatomical and biomechanical lines. It is nice to not have to compensate for inherent safety issues present in most feet. It is great to see patients be able to adjust the foot themselves for knee stability and differing foot/ankle actions in various activities. We are certified Pathfinder providers and encourage you to inquire as to whether the "Pathfinder" is right for you!



Got Logo?

So, we have created a new foundation, P.A.C.E. As we said in our cover article, we are still “spreading our wings”. Part of this process includes creating a logo that fulfills the following criteria:

- 1) The logo should reflect the issues that P.A.C.E. will be assisting in (disabled sports and prosthetic devices)
- 2) The logo should be some sort of icon that

will be easily recognizable (like Microsoft’s Windows logo—practically everyone knows what that logo represents.)

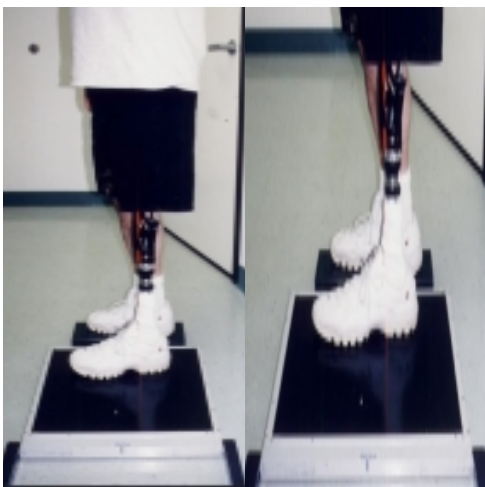
Should you be blessed with creativity and artistic ability, we would love any and everyone to submit ideas for our logo. We will take any format we can get—a drawing, a painting, a computer generated graphic. Submissions can be mailed to the Corporate Office at :

Logo Submissions
C/O Ability Prosthetics
6190 Fairmount Avenue
Suite A
San Diego CA 92120

Or they can be submitted via email to:
goodnews@abilitypros.com

Any input will be greatly appreciated, and, of course, the artist will be given credit and recognition. We look forward to seeing your suggestions!!

The Otto Bock L.A.S.A.R. Posture



A prosthetic patient stands on the L.A.S.A.R. so that the practitioner can check our alignment versus the biomechanical alignment. At the inset, you may be able to see the red laser line projected vertically on the prosthesis.

Otto Bock has a new product on the market that stands to improve and expedite current alignment procedures for both orthotic and prosthetic devices.

It is called the “L.A.S.A.R. Posture”, with L.A.S.A.R. standing for Laser Assisted Static Alignment Reference. This device consists of a force sensing plate that has electronic measurement cells in each of the four corners. The input from the cells determines the center of the forces while standing, which is otherwise known as the center of balance or the load line when speak-

ing of amputees. This line is invisible to the naked eye. Current methods of alignment for prosthetics and orthotics are based on subjectively determined reference lines and subsequent reiterative alignment processes. The L.A.S.A.R. produces a biomechanically based reference line. A laser is projected across the body to where the unique load line lays. The laser can be manually shifted to measure distances between body parts or between say a brace’s joint position and the person’s load line.

By using L.A.S.A.R. to align prosthetics and

braces, the posture and weight distribution are more correctly achieved.

We have used the L.A.S.A.R. on four patients so far, and we saw firsthand how the load line is not the same for each individual. It has helped us to better predict the alignments and joint placements than we were able to when we were using traditional alignment methods.

More information about the L.A.S.A.R. is available online by visiting www.healthcare.ottobock.com/index.html and searching on “LASAR”.

Ability Proud Sponsor of Annual P.V.A. Golf Tournament



P.V.A. member Pat MacDonald tees off on Ability’s adapted golf cart.

Ability is very pleased to talk about our increasing involvement with the Paralyzed Veteran’s of America Organization (P.V.A.). On May 3, 2000, the P.V.A. held their annual charity golf tournament at the Rancho Bernardo Inn golf course. All proceeds from the tournament, the sponsors and the silent auction, held at the awards ceremony, go toward the P.V.A.’s disabled sports team, the Beachcombers. The Beachcombers

are a group of athletes that compete each year at the National Veterans Wheelchair Games.

Not only was Ability a sponsor for this event, along with such companies as Motorola, Nike and Viejas, but we were also able to provide use of our adapted golf cart for P.V.A. member Pat MacDonald to use on the course.

This cart, sponsored by S.D.G.&E, is one of only two carts designed for use on the golf course by disabled golfers. It can drive over greens and through sand traps without compromising the integrity of the course itself. It certainly has opened the door for many more disabled golfers to get out and enjoy the sport!! As a matter of fact, Pat is the first Paralyzed Veteran to participate in the P.V.A. golf tournament!! Pat says that the cart’s swiveling seat makes it

easy for him to hit the ball from the cart, and that it’s nice to be able to carry his own clubs and water and other supplies by himself on the cart. He says the cart has good power, is easy to drive, feels secure, and is easy to transfer in and out of. Justin, Ability owner and C.P. has been using the cart in his disabled golf clinics, the Birdie Chasers, with the same rave results. We are proud to have been a part of this special day, and look forward to providing future support!



Ability’s Bronze level tee-sponsor sign at the P.V.A golf tournament.

Ability Treats Clients From Far & Wide

One of the nice things about being in our business is that we get to meet people from far away places, with all kinds of life stories. Ability has many clients that go out of their way to travel to San Diego, CA, because they haven’t been able to find satisfactory prosthetic care in their own areas.

Currently, we have four prosthetic clients, with four different types of prosthetic needs, and four different life stories that we are treating. One is a unilateral double amputee that travels from Idaho. Another is an

Above-Knee amputee that hails from Alaska!! This individual visited several states and prosthetic facilities before finding Ability, and feels that he finally found the right prosthetist. The third, a Below-Knee amputee, frequently journeys from Northern California, and the fourth, a Symes amputee, has been coming from Utah for years.

Ability prides itself on it’s quick delivery turnaround time with all of our out-of-town clients. We have a strong devotion to our fitting and

fabrication process, and know that “time is money” for everyone.

All of these clients have told us that they just couldn’t get prosthetics elsewhere that were as comfortable, light and that returned them to the level of activity that they were looking for. It sure makes us feel good to see people come in in one state of mind and level of activity, and then to send them on their way in a better way! We look forward to hearing more of your stories and efficiently serving your needs.

Veterans in the year 2000



A view of Mr. Lemke's cineplasty & body powered arm.

Stan Lemke has been an amputee for almost fifty years now. He lost his arm in close combat, fighting for the Marines in Korea.

In 1951, he became one of the first

people on which a procedure called a cineplasty was performed. A cineplasty is a surgical isolation of a loop of muscle of chest or arm, covered with a skin graft, and inserted with an implant device to be operated by contraction of the muscle in the loop. In Mr. Lemke's case, part of his bicep muscle was isolated to operate a body powered prosthetic arm. At that time, this procedure was a cutting edge alternative to a shoulder harness prosthesis.

Now, fifty years later, the V.A. is providing Stan with today's most cutting edge technology—

Stan Lemke



Glenn does an initial fitting of a myoelectric prosthesis with Mr. Lemke

a myoelectric prosthesis. This new prosthesis, operated by muscle impulses and electrodes, will give Mr. Lemke's cineplasty muscle a much needed break. It will also be more cosmetically pleasing, and provide his body powered arm a rest allowing for less wear and tear to occur.

Mr. Lemke was extremely pleased with his experience both at the V.A. and at Ability. He said the openmindedness of the staff & the choices offered to him at the V.A. prosthetic clinic were beneficial and much appreciated.



Mr. Lemke practices using the myoelectric prosthesis.

Veterans in the year 2000

Senoy King

Senoy King is a Vietnam veteran, and has been an orthotic and prosthetic user since 1968. Mr. King utilizes a long-leg brace (a KAFO) on his left side, and wears a below-knee prosthesis on his right side. Senoy leads a very active lifestyle. He is a fine artist who specializes in oil paintings of land and seascapes and also practices calligraphy. He is an active member of his church and spends many hours standing

and walking. Surprisingly, Mr. King feels that his prosthetic side is his most reliable. He feels that he has no limitations in doing what he would like to do, and commented on the advances that have been made in prosthetic technology. "My prosthesis today is much lighter and more durable than ones I had in the past." His artwork is available for purchase on Ability's website, located at www.abilitypros.com.



An oil seascape and still life. See our website www.abilitypros.com for more art!



Mr. Senoy King—veteran, artist and active Kingdom Hall of Jehovah's Witnesses member.

PROFILES IN DETERMINATION: PATIENT NEWS

"I'm going to take this leg to the limit! It's the best one I've ever had."

George Bourus has been an amputee since 1972. While in the Air Force, George worked as a linguist in Vietnam. After suffering an injury there, he was MedEvac rescued to an Air Force Medical Facility in Germany. It was upon transferring from that facility to an Air Force hospital that the ambulance George was riding in was hit by a truck. The ambulance flipped, and George's leg was injured so badly that it had to be amputated upon arrival at a local English hospital.

George says that his first prosthetics were heavy and wooden, used straps



George Bourus, trying out his new ultralite prosthesis with Pathfinder foot.

for suspension and wool socks, and that they were hard to walk in. Since those early days, George has had a suction socket leg that did not hold suction, a leg worn with a P.T.B. (patellar tendon bearing) strap, and a leg that was

George Bourus

"comfortable but not functional". George says that his ultralite prosthesis from Ability is "amazing". George was fit with a new high activity foot from Ohio Willowwood called the "Pathfinder". He marvels that "I can feel the ball of my foot when stepping through in my prosthesis"! He says he feels very secure in this leg because of the locking suction suspension system that is being used and the strong lateral support the foot provides, especially on uneven surfaces.

George is a general contractor and a general "go getter" in everything he does. It is normal to see him hopping through the office in his prosthesis during a check-up. He has four grown children, a beautiful wife, Cheryl, and eight grandchildren that he is actively

involved with. "I'm going to take this leg to the limit! It's the best one I've ever had and I haven't broken it yet"! George is looking forward to obtaining a water sport leg from Ability and returning to a favorite sport—skiing, and we are looking forward to watching George continue to push the limits.



A closer view of George's ultralite prosthesis.

Jesse Robinson and Paul Richardson



Jesse during his initial adapted prosthetic fitting.

Jesse Robinson is a 27 year old P.V.A. client. He has been an incomplete quadriplegic since 1994, and earlier this year, became an above-elbow amputee. Jesse was looking for a company that not only would

listen to what his wants and needs were, but that could make an adaptive prosthesis for his various needs. Ability fit that bill, and we are making three adaptive arms for Jesse: one for transferring to/from his wheelchair, one for pushing his wheelchair, and one for use in the pool, so that he may continue his therapy. Jesse has been very active in all manner of wheelchair sports and Olympic competitions, including rugby, and looks forward to returning to all of these activities through the V.A. providing adaptive prosthetics from Ability. In the future, Jesse will be fit with a Utah elbow, which will restore function to his arm for both work and play endeavors.



Paul Richardson in his kayak.

Paul Richardson is extremely active. Also a P.V.A. client, Paul has been an incomplete quadriplegic since 1984. Paul has been playing competitive wheelchair rugby since 1991, and also scuba dives and flies glider planes. Recently, Paul took up kayaking, and found he needed an adapted paddle. Ability is adapting this piece of equipment for him, and will be making an adapted racquet for his next endeavor—tennis.



Paul making his way out onto the lake.

"Jesse was looking for a company that could make an adaptive prosthesis for his various needs".