

PROSTHETICS

Mary Free Bed Prosthetics Inaugural Education Luncheon

On Tuesday, March 6, 2007, Mary Free Bed Prosthetics sponsored an Inaugural Education Luncheon at Mary Free Bed Rehabilitation Hospital. According to Patrick Nimphie CPO, and Prosthetics Clinical Manager, "This event was a huge success, and we look forward to making it an annual event."

Following are just a few of the comments we received from the participants.

"The information provided in your seminar was succinct, fast paced, and helpful in improving my understanding of different aspects of amputations and the after-care of amputees. I was not aware, prior to this seminar, of some of the excellent follow-up (and also pre-op) care provided by Mary Free Bed and I will gladly refer my patients to your facility to be cared for by your competent staff."

Arko den Engelse, PT
Community Care Givers

"I loved that I could meet and speak with the prosthetists after the presentation. It was well organized and I would definitely come to future educational sessions offered by Mary Free Bed's prosthetic staff."

Lana Keizer, OTR/CHT
Rehabilitation Professionals, LLC

"The presentation was very informative and useful to people working in long term care facilities. It was presented in a way that was easy to understand and take back to staff members who were unable to attend. It is also amazing to realize the support Mary Free Bed is able to offer to skilled nursing facilities, our residents, and staff. The tour of your facility was very impressive!"

Karen Peters, Community Relations Representative
Tendercare (Michigan) Inc.

The 50 plus participants, predominately physical therapists working in sub acute nursing facilities, heard a presentation entitled "The Trans-Tibial Amputee – Management in the Sub Acute Environment".



Pictured left to right: Patrick Nimphie, CPO; Benjamin Bruinsma, MD; David Firlik, CP; John King, CP, FAAOP. Photo used with permission.

Benjamin Bruinsma MD, Rehabilitation and Physical Medicine Specialists, PC, and Director of the Mary Free Bed Amputee Program began with a talk on "Prediction of Prosthetic Use in the Amputee". Dr. Bruinsma spoke about who is a candidate for the transtibial prosthesis, contraindications for prosthetic use, pre and post-operative considerations, wound healing and pain control.

John King CP, FAAOP continued with a discussion about the Mary Free Bed patient and family support system (the team that Mary Free Bed has supporting each patient), pre-surgery preparations, surgery and post-surgery expectations. He talked about the post-operative timelines, weight bearing, and the fitting process. He also covered limb shrinkage, below the knee alignment, limb volume management, and troubleshooting.

David Firlik CP presented on definitive prosthetic fitting. He spoke about donning/doffing limitations, socket design, materials, volume changes, strength, range of motion, as well as other topics of interest. Also discussed were options available for feet, including protective and cosmetic finishes, adjustments, and follow-up appointments.

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Mary Free Bed Prosthetics Inaugural Education Luncheon – cont.

Patrick Nimphie CPO, concluded the presentation with a brief discussion about insurance coverage, and services provided at Mary Free Bed including home visits, the adult amputee clinic and Mary Free Bed's no cost evaluations.

A question and answer period was followed by a tour of our prosthetic department, led by Mark Bennett CPO, who also played an integral part in the organization of the event.

Mary Free Bed prosthetic clinicians are available for on-site training at your facility. In addition, we also provide on-site patient care when it is difficult for the patient to come to us. To schedule an on site visit, or to find out more about our bi-monthly amputee clinic, call 616-242-0342. If you would like to schedule an in-service, or be added to our mailing list for future Prosthetic or Orthotic educational seminars, please contact Stephanie Millis.

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ORTHOS.E.A.T.

Bikes for the Rest of Us Rides Again

Bikes for the Rest of Us began in the summer of 1988, initiated by the MFB Pediatric Recreational Therapists with the support of the Mary Free Bed Guild. This event was created to help special needs families try out bikes modified with adapted stabilizing or large training wheels to accommodate a rider's additional balance needs. That first year, 15 participants attended, and volunteers from MFB OrthoSEAT assisted to modify the bikes. Since that time the event grew in demo cycling equipment, participants, and volunteers. The MFB OrthoSEAT staff has now become the core organizers of the event and continues to volunteer their time to help modify some of the special cycles.

Over time the MFB Guild refined its format for funding assistance and has been very generous in its support of a community event that helps families stay active throughout the Michigan cycling months. Cycling is

seen as a healthy sport that the whole family can enjoy, and Bikes for the Rest of Us helps families enjoy this pastime together.

Participants with a physical disability that prevents them from using standard equipment, are encouraged to participate. Approximately 90% of the participants are under the age of 21, and most are challenged by a wide variety of diagnoses such as Cerebral Palsy, Spina Bifida, Spinal Cord Injury, Brain Injury, Muscular Dystrophy, Autism, Developmental Delay, Amputation and Downs Syndrome.



Photo used with permission.

Volunteers come from many community service organizations and companies and include MFB employees, friends, family, Ambucs and Rotary, local DME supplier staff, and area high school students. The MFB Guild supports the event with volunteers and refreshments, as well as grant funding assistance for bike purchases. Companies providing demo equipment include Chicago Drive Cycling and Fitness, Airway Oxygen, Inc., Creative Mobility and Wiz Wheelz.



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ORTHOS.E.A.T. – cont.

Bikes For The Rest Of Us Rides Again – cont.

The most recent event took place Saturday, April 28, 2007 with 92 pre-registered participants and over 50 volunteers. Volunteer therapists are paired with participants to help match their abilities with the appropriate cycling equipment. Bike safety is also stressed, including the use of bike helmets for ALL riders. Then participants can purchase the identified bike, or apply for funding assistance through a grant or other charitable donation.



Photo used with permission.



Photo used with permission.

With the cost of the specialty biking equipment varying from \$250 to \$4000, and typically not covered by medical insurance, MFB Grant assistance is available for those who qualify. If a family receives a bike with funding through the special grant, they are required to “re-cycle” the

bike through this event when it is outgrown or no longer appropriate. This allows us to keep these costly bikes in circulation through many users.

To learn more about this program, or to find out how to participate in this event in the future, contact Karen Gora, MPA, OTR, ATP Clinical Manager, RTC, at 616-242-0347, or e-mail at Karen.gora@maryfreebed.com.

ORTHOTICS

Pectus Carinatum Treatment Option

Pectus carinatum, or pigeon chest, occurs when the sternum is pushed outward due to excessive growth and structural abnormalities of breast bone or rib cartilage. The deformity develops in early adolescents during a growth spurt, occurs mostly in boys, is linked to a genetic factor and the cause is unknown. Generally internal organs develop normally, but some patients complain of shortness of breath or stamina. Patients may become self conscious due to the body image. In severe cases, surgery is used to correct the chest contour. In mild to moderate cases, an orthosis can be used to

correct the deformity. The orthosis is custom fabricated for each patient and fits well under clothing. The patient wears the orthosis 24 hours per day for 2-3 months, and outcomes are usually very good.



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Mary Free Bed
Rehabilitation Hospital

ORTHOTICS – cont.

Petoskey News: Health and Medical Review – Reshaping Helmets

Ethan Leavitt, CO was recently interviewed for an article in the February 2007 issue of the Petoskey News-



Review about helmet therapy to correct cranial deformities in infants. Here is a part of this informative interview.

Photo used with permission.

Head flattening has become a common occurrence in recent years, particularly following the American Academy of Pediatrics “Back to Sleep” campaign that encourages parents to put their children to sleep on their backs, rather than on their tummies. No one can dispute the good that has come from the campaign: Deaths from SIDS have dropped dramatically, by 40 percent. An unexpected side effect, however, has been a rise in cranial deformities from the pressure placed on the back and side of babies’ soft skulls.

Many pediatricians who determine an infant’s case of head-flattening won’t correct on its own will refer patients to Mary Free Bed Rehabilitation Hospital in Grand Rapids. There, specialists can determine whether a reshaping helmet (cranial orthosis) will be necessary to round out a baby’s head shape.

There are three different types of cranial deformity. The most common is plagiocephaly, which is marked by flatness on one side of the back of the head. There is also sometimes a bulging above the eye on the same side of the head, caused by the skull being pushed forward, and the ears are out of alignment. The second type of flattening is called brachycephaly, a flatness that runs straight across the back of the head. And the third type is scaphocephaly, which is uncommon and is characterized by a long narrow head shape.

Treatment options may include repositioning babies with rolled towels or using positioning devices can help keep pressure off the sides and back of the head. Turning a child’s head after they’ve fallen asleep can help, and putting them to bed at the opposite end of the crib each

night is another idea. Some infants have a side preference because of a condition called torticollis, where a shortening of the neck muscle causes tightening on one side, making turning the head the other direction uncomfortable. Physical therapy can help stretch the infant’s muscles to make it more comfortable to roll the head from side to side.

It is possible for the heads of infants with mild or moderate flattening to round out on their own. Those with more severe cases, however, will likely require a corrective helmet. Helmet therapy is a passive approach to correction. Pressure is not applied to the skull; rather, gaps are shaped into the helmet to allow the flatter area to grow into the corrected round shape.

At the initial visit, a scan will be taken of the child’s head to determine the severity of flatness. Those measurements are used to craft the helmet, rather than the need for a plaster mold. The earlier the helmet therapy is started, the shorter the amount of time the child will likely have to wear it and the better the correction achieved. The best age for helmet therapy is between 4 and 7 months, when overall growth is rapid. After 10 or 11 months of age, less correction is expected or longer wearing times are required.

The baby must wear the helmet 23 hours a day after the initial break in period, with therapy varying typically from 3 to 6 months. Follow-up appointments are made regularly to ensure the helmet fits properly as the child grows.

Shape Magazine: Make Your Sneakers Comfier

Stephanie Millis, Orthotics Assistant at Mary Free Bed Orthotics was recently quoted in the May 2007 issue of Shape Magazine.



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Insoles offer serious shock absorption, cushioning, and arch support. Try a pair if you suffer from minor aches and pains in your hips, knees, or back when you exercise.

Stephanie was asked to test and provide a critique on 11 of the newest insoles for Shape Magazine. These are the three insoles that came out on top.

ORTHOTICS – cont.

Shape Magazine: Make Your Sneakers Comfier – cont.

Sorbothane SorboElite Insoles (\$31)

Best for flat or moderate arches, overpronators (feet that roll inward), and those who run or walk mainly on roads or sidewalks.

The lowdown - Shock-absorbing pads under the heel, forefoot, and big toe decrease impact on your ankles, knees, and hips. The squishy material felt surprisingly supportive.

Sole Slim Insoles (\$40)

Best for high arches.

The lowdown - You heat these for a few minutes in your oven, pop them in your shoes, then stand on them to get a custom fit. With the highest arch of all the styles tested, Sole Slims provided major stability. My feet were cradled and my arches were fully supported.

Superfeet Blue Insoles (\$35)

Best for low arches and those with a neutral stride (feet that don't roll too far in or out).

The lowdown - These trim-to-fit insoles maximize cushioning, but they also have a reinforced heel that provides shock absorption. If you don't need arch support or pronation control, these are for you.

Mary Free Bed Orthotics Patient Completes Boston Marathon



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“My feet felt pretty good,” said Tammy Coleman, Mary Free Bed Orthotics Patient. She then added, “as good as they can feel running 26.2 miles”. Tammy recently

completed her first Boston Marathon, wearing her Mary Free Bed Custom Foot Orthotics, with a time of 3:42.

After qualifying for the Boston marathon in the Columbus marathon last year, Tammy decided she would run it with her husband, Mike, also a qualifier. An injury, however, forced Mike to forego running Boston this year. Tammy said she felt especially bad because he “loves” marathons, and she feels that marathons are not her forte. Tammy prefers trail running, triathlons, and ½ marathons. This from someone who has completed 4 marathons; in Ireland, Alaska, Columbus and now, Boston!

When she's not training for a race, Tammy teaches 8th grade at Lowell Middle School, and also teaches at Lansing Community College. When asked if she thinks all of her athletic endeavors have had an effect on her students, Tammy responds, “I'd like to think that I've had an influence. In a recent track meet, one of my students, who ran faster than usual, told me that she didn't think she should complain about running a short distance, when she knew that I had just run 26 miles!” Tammy also said that her students at Lansing Community College have recently started a 5k training group, and are preparing for their first race.

Tammy came to Mary Free Bed when her miles of training were causing her some foot and leg pain. After an evaluation, we made her a pair of custom foot orthotics. No foot orthoses or shoe can make that 26.2 mile journey any easier, but hopefully, the foot orthotics from Mary Free Bed, made the experience a little less painful.

When asked if she will do it again next year (she qualified at Boston for next year's race) Tammy said she wasn't sure. She said she'd like to really focus on the ½ marathon this year, but she'd see how things go.

Mary Free Bed can make custom foot orthotics for patients training for the Boston Marathon, or dealing with the pain of diabetes, arthritis, or everyday living. Foot orthotics can correct misalignment of the legs, hips and back, the cause of a lot of discomfort in athletes and non-athletes alike. If you have a patient that is experiencing back, leg, or foot pain, consider having them evaluated for a custom foot orthotic at MFB.

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ORTHOTICS & PROSTHETICS STAFF UPDATES/CONTINUING EDUCATION

Foreign Missions



John Flynn CPO, and Mike Shedd RTP, spent 10 days in Quito, Ecuador in January/February 2007. The trip focused on fabricating and fitting patients needing transfemoral and transtibial prostheses. They were part of a team of prosthetists and technicians from across the United States. The group worked out of a foundation that serves people with little or no funding. This team was able to make 54 limbs, all from donated prosthetic components. Follow-up services and support is provided by the staff of prosthetists and technicians at Fundacion Hermano Miquel, located in Quito, Ecuador.

Photo used with permission.

Events

Mary Free Bed Orthotics and Prosthetics sponsored a booth at the Fifth Third River Bank Run on May 11 and 12.

Continuing Education

Ethan Leavitt CO, passed his exams and now is an ABC Certified Orthotist. Ethan's specialty areas include pediatric patient management, custom plagiocephaly helmets, and lower limb orthoses.

Doug Richardson CO, attended the Michigan Health and Rehab Conference in April 2007. This course reviewed areas of patient management following a traumatic brain injury.

Mark Bennett CPO, and Patrick Nimphie CPO, attended the Association for Children's Orthotic and Prosthetic Clinics (ACPOC) in Atlanta, GA in March 2007.

Staff Contacts:

Orthotics: John Flynn CPO (Clinical Manager 616-459-1810), Rex Brown CO (Pediatrics 616-356-1886), Gina Corazza CO (Plagiocephaly 616-356-1887), Doug Richardson CO (Spinal Deformities, Brain Injury and Facial Burns 616-242-0315), Becky Meyer CO (Spinal and Pediatrics 616-242-9213), Brent Tuinstra CO (Pediatrics and Plagiocephaly 616-493-9823), Larry Dubinshak CPed (616-356-1884), Becky DeLongpre CPed (616-356-1894), Stacy Eddy, Assistant (River Valley Orthopedics 616-493-9698).

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