

The Human Gait Institute

Supporting the Development and Use of Innovative Human Leg Bracing

News & Updates • Spring 2016



The mission of the Human Gait Institute is to assist people in reaping the benefits of lower extremity orthotic technologies by supporting and/or conducting research, by fostering education and training for orthotists in these technologies, and by providing resources to support patients who are considering or using these technologies.

► HGI's New Mission Emphasis

The HGI Board members recognize that each individual needing lower limb bracing has special needs that any one bracing system might not address. The board members are undertaking to examine the available market and how each particular brace works, including characteristics that can be compared among different braces. The ultimate goal is to develop comprehensive, user-friendly references containing information that can be compared for various types of lower extremity braces.

The Board members have begun to seek information about braces other than DBS and to develop a comparative reference document. In their research, it has become apparent that there are many terms with which potential brace acquirers should be familiar in order to make reasonable decisions and have constructive conversations with professionals. The Board members have also concluded that a self-guided workbook that allows wearers to ask questions and make decisions regarding options for a potential brace would be helpful. The goal of this workbook is to minimize the surprises that can show up after the new brace is a reality.

The Board made substantial progress in 2015 in developing an explanation of common terms used in relationship to bracing and in developing questions to ask across a spectrum of topics involved in getting a new leg brace. It is expected that two documents for these purposes will be completed in mid-2016. They will be posted on the HGI website when they are completed.

After completion of these documents, work will begin on obtaining

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▼ The Origins of the Human Gait Institute

Dr. Marny Eulberg saw a problem that needed an enduring solution and then went about fixing it by founding the HGI

In 2005, Dr. Eulberg felt she needed assurance of lifetime availability of her innovative brace — not only for herself but also for others who have benefited from the brace. This awareness led to the founding the Human Gait Institute, an independent non-profit organization. HGI allowed her to design a training course for orthotists in collaboration with the Dynamic Bracing Solutions developer.

Also, through her own experience and interaction with other DBS wearers, she recognized that the unique properties of the bracing system often required wearers to learn new ways of walking, and that they needed support to become proficient with their new brace. So began the support groups, Facebook page, DBS Handbook and Buyers Guide that are available through HGI, all part of Marny's vision. With the help of three other Board members, her vision is now an ongoing reality.

HGI'S New Mission Emphasis, cont'd

available information about different types of lower extremity braces so that a comparative document can be developed. Exactly what will be compared is still under consideration. Suggestions from followers of HGI activities would be welcomed as would any information or "leads" about bracing technologies, especially new bracing technologies.

Below:
Most of the Northern California discussion group participants at the April 2, 2016 meeting.

HGI RESEARCH UPDATE

HGI has been conducting a research study comparing outcomes with DBS braces compared to whatever a person was using prior to getting a DBS brace. The data collection phase has been completed. The goal for 2016 is to do the statistical analysis of the collected data and writing up the results which will be submitted for publication in medical/orthotic journals.

The study enrolled 26 persons (11 female, 15 male) from January 2012 through January 2015. The study was designed to collect data at baseline, 3 months, 6 months and 12 months of meaningful use of the DBS brace. The 26 subjects supplied the required information for at least 6 months of use.

The age of subjects enrolled in the study ranges from 24 to 74, with an average of 58 years of age. Of the subjects, 22% had used no prior bracing, 66% had used various designs of conventional AFOs (ankle foot orthoses) including ground reaction AFOs such as "Blue Rocker," and 12% had used KAFOs (knee-ankle-foot orthoses – "long leg braces"). Two individuals who had used KAFOs were able to successfully transition to using a DBS AFO.

There were a variety of diagnoses among the study participants that made leg bracing advisable:

undiagnosed neurologic disorder	2	traumatic nerve damage	1
unilateral "nerve paralysis"	2	sequelae of West Nile Virus	1
prior poliomyelitis	21	painful ankle arthritis	1
multiple sclerosis	1	unknown	1
Charcot-Marie-Tooth disease	1		





◀ Left to Right:
Margaret Hinman, Jim
Dean, Marny Eulberg and
Karla Stromberger, virtually
under the table!

Meet the HGI Board: Who is Dr. Marny Eulberg?

Dr. Marny Eulberg of
Denver, CO is the founder,
inspiration and President of
the Human Gait Institute.

She has practiced as a
family medicine physician
since 1977, and founded
and has been the medical
director of a Post Polio
Clinic since 1985. A polio
survivor since 1950 with

residual weakness in her entire left leg,
Dr. Eulberg has used multiple designs of
leg braces for about 35 years. She has
been an enthusiastic Dynamic Bracing
Solutions brace wearer since 2004. The
brace has allowed her to participate
in activities she would otherwise not be
able to do in a conventional brace such
as snowshoeing. She has also been able
to avoid a locked knee brace (KAFO).

Her education includes a B.S. in
clinical laboratory technology from
South Dakota State University, an
M.D. from the University of Arizona,
and completion of a Family Medicine
Residency at Mercy Hospital in Denver,
Colorado.

Now semi-retired from active practice,
she continues to conduct post-polio
evaluations from her home and is
the team doctor for Easter Seals
Colorado's Post-Polio Travelling Clinic
that visits locations outside the Denver
metropolitan area to evaluate and
make recommendations to polio
survivors. She is active in Rotary and also
on the Board of Directors of Post-Polio
Health International.

HGI Discussion Groups

Discussion groups continue to be organized and facilitated by the HGI Board members in Colorado and Northern California. A survey sent to all of you during 2015 indicated that you want these meetings to continue. The last meeting of the Colorado group covered the increasing use of assistive devices (canes to scooters) as we age with our braces, and to some people deciding to stop using their braces or change to a different type of brace. It was important for the individuals to acknowledge and accept that these changes may be a normal part of the aging process and do not warrant feelings of failure. We can acknowledge what we have now and enjoy it and accept that change is inevitable.

The **Northern California group** discussed items in the document on the HGI website called "Considering Custom Leg Braces". That included issues around when to ask for help from an orthotist and/or physical therapist, and the greater challenges of aging without support people in one's life. There were also several tips offered by participants which included issues with loose knee bolts, freezing of knee joints, obtaining brace socks and methods of de-squeaking one's brace in your shoes. All of these tips are posted on the HGI Facebook page.



Gifts and Donations

The Human Gait Institute is run by a group of dedicated volunteers who donate their time and money to accomplish their mission statement. Funding for the activities and programs comes from assessing costs for the activities, and from donations from generous supporters of our mission.

Your tax-deductible donations will help support our ongoing activities, including those highlighted in this newsletter.

We also appreciate any information on resources that might help fund our activities and programs.

Please send any donations to:

**Human Gait Institute
c/o Dr. Marny Eulberg
9461 W 37th Place
Wheat Ridge, CO 80033**

Disclaimer: The Human Gait Institute is an independent 501 (c) (3) non-profit organization, and not affiliated with or in the employ of Dynamic Bracing Solutions, the inventor and manufacturer of the DBS orthosis.

For more information, see our website:

<http://www.humangaitinstitute.org/>

or our Facebook page:

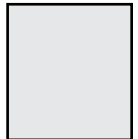
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