

I26 Smart Knee Brace

June 30, 2008

Stations, please note: In accordance with the Bayh-Dole Act of 1980, Mayo Clinic has patented technology based on Dr. Kaufman's research and has licensed it to Otto Bock for use in the Sensor Walk brace. Both Mayo Clinic and Dr. Kaufman are entitled to a share of royalties from sales of the device.

Intro: Forty years ago Army Staff Sergeant Walt Myers was exposed to the herbicide Agent Orange in Vietnam. Now he suffers profound muscle weakness in his legs. He was facing the possibility of spending the rest of his life in a wheelchair. But thanks to a special knee brace developed at Mayo Clinic, Walt is walking tall.

Video

Total running time 1:29

CG :00 to :05

Walt Myers

Vietnam veteran

Audio

“TO BE HIT WITH SOMETHING THAT TAKES AWAY YOUR MOBILITY IS ABSOLUTELY DEVASTATING.”

BUT EVERY DAY, VIETNAM VET WALT MYERS STRAPS ON THESE LEG BRACES AND WALKS.

“IT TAKES A FEW MOMENTS TO GET DRESSED IN THE MORNING.”

WALT HAS A DEGENERATIVE NEUROLOGICAL CONDITION, POSSIBLY CAUSED BY EXPOSURE

TO AGENT ORANGE, THAT CAUSES HIS MUSCLES TO GET WEAK.

THESE BRACES ARE KEEPING HIM OUT OF A WHEELCHAIR.

AND UNLIKE OLDER MODELS

WHICH KEEP YOUR KNEES

LOCKED IN PLACE, THIS BRACE IS

SMART – IT'S PROGRAMMED TO

MOVE WITH YOU.

“WITH THIS DESIGN, IT STILL GIVES

THEM STABILITY DURING STANCE

BECAUSE IT'S LOCKED, BUT IT

ALSO GIVES THEM MOBILITY

DURING SWING SO YOU CAN WALK

NORMALLY.”

THE BRACE, DEVELOPED BY DR.

KENTON KAUFMAN, STEVE IRBY,

AND THEIR BIOMECHANICS TEAM

AT MAYO CLINIC, IS CONTROLLED

BY A COMPUTER. WHEN A

PATIENT PUTS WEIGHT ON THE

BRACE, IT LOCKS IN PLACE,

KEEPING HIM STABLE. WHEN HE

CG :31 to :39

Kenton Kaufman, Ph.D.

Mayo Clinic Biomechanics

LIFTS HIS LEG TO SWING IT FORWARD, SENSORS ON THE FOOT DETECT THE CHANGE AND THE BRACE AUTOMATICALLY UNLOCKS.

“IT ALLOWS PEOPLE TO BE MORE MOBILE, SO THEY CAN DO THE NORMAL ROUTINES THAT THEY WOULD LIKE TO DO TO BE INDEPENDENT.”

CG 1:07 to 1:17
Vivien Williams
Reporting

THE NEW BRACE IS NOT ONLY FOR VETERANS. IT'S ALSO USED BY PEOPLE WITH MUSCLE WEAKNESS FROM DISEASES LIKE POLIO OR MUSCULAR DYSTROPHY. IT MAY ALSO HELP PEOPLE WITH WEAKNESS FROM TRAUMATIC INJURY TO STAY ON THEIR FEET. “IT ACTUALLY TORE UP MY SOUL WHEN I THOUGHT I WAS GOING DOWN TO A WHEELCHAIR. BUT I'M JUST TICKLED PINK I'M STILL GOING.”

FOR MEDICAL EDGE, I'M VIVIEN
WILLIAMS.

Anchor tag:

The device is marketed under the trade name Sensor Walk by Otto Bock Health Care. It has recently been approved by the FDA.

For more information, visit our Website at... [STATIONS: Per the licensing agreement, please provide a link from your station's website to <http://www.mayoclinic.org> or voice tag "mayoclinic.org" for more information.]