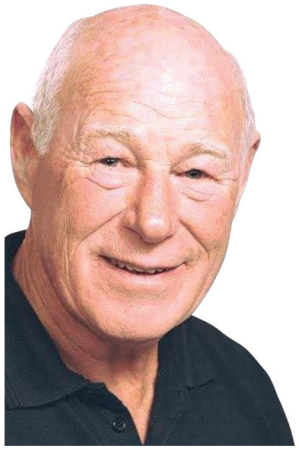
GaitTec

by

AlfaCare

In-Shoe Therapy shaped to match the plantar surface of the foot and used in the prevention and treatment of injury, pain, and disability, through the optimization of lower extremity function

"The human foot is a masterpiece of engineering and a work of art."
Leonardo da Vinci



The Story of GaitTec

Our story began in 1980 when Dr. Charlie Baycroft developed pain in his Right Achilles Tendon while training for a marathon. Dr Baycroft's knowledge and experience in Musculoskeletal Medicine and the treatment of sports injuries was not solving this problem that kept frustrating his training. He had read about the Foot Orthotics that were beginning to be used in America and decided that it might be worth a try. With what little knowledge he had and the help of a local Orthotist made a pair of "these insoles". The following day, he and a friend went for a 15 kilometre training run and to Charlie's utter amazement the Achilles problem vanished. This "miracle" set Dr. Baycroft on a path he has followed ever since.

To fully understand how and why this form of therapy is so effective and to help other medical therapists learn and use it as well.

These insoles that cured Dr. Baycroft's Achilles tendon were further developed and modified, according to the results achieved in treating his patients, and became Formthotics, the first product in the class of medical devices that are now referred to as Prefabricated Foot Orthotics. This was done in collaboration with a Physiotherapist, a Sports Shoe designer and with assistance and advice from Arthur Lydiard who was arguably the most influential of all athletic coaches and trainers.

A company called Footscience International Limited was founded by Dr. Baycroft and his colleagues and began manufacturing and distributing the products, which are now used worldwide and have also been widely copied.

The Formthotics design and method of therapy was based on the science of the time, which was the anatomical and biomechanical theories and model of the American Podiatrists. It was believed that running related injuries were caused by excessive impact forces and anatomical defects that caused "over pronation". The desired effects of foot orthotics were believed to be shock absorption and control of the movement of the foot. These hypotheses were never proven and have actually been invalidated by scientific research.

Sport related injuries and other chronic and recurring problem of the Locomotor System (musculoskeletal System) are not caused by "shock" and "pronation". These ideas were based on 17th century science and the belief that unction is determined solely by structure. They were also adopted and vigorously promoted by the manufacturers of sports shoes and have become "urban myths".

Science has enabled us to understand locomotor function and human Gait much better since 1980 but this has not had a great influence on how foot orthotic devices are designed and dispensed to patients.

As well as understanding the anatomy and kinematics (movements) involved in Gait we now know more about:

- Kinetics (forces related to the movements),
- Energy Return. The way in which kinetic energy is stored as elastic energy in the tissue and then released to aid efficiency.
- The Muscles and the importance of how their activity is synchronized and sequenced.
- Neuroreceptors and Articular Neurology and how forces generate neural signals.
- Neural Processing and how the nervous system processes incoming signals and generates appropriate responses.
- Neuroplasticity we are starting to understand that the nervous system is not static but is constantly regenerating and modifying itself to enable us to learn, adapt, maintain and improve function.

Our scientific models have also changed as our modern technology has advanced and data processing models related to computer science are starting to replace the mechanical models from the time of the industrial revolution.
These scientific discoveries are being applied in Medicine. Physiotherapists started to adopt them in the 1990's due to research and publications by leaders such as Barry Wyke and Manohar Panjabi. Academic Podiatrists are now aware of how these things relate to human locomotion and foot orthotic therapy but unfortunately this knowledge is not being widely accepted and incorporated into clinical practice. These new discoveries about human locomotion are also beginning to be incorporated into the design of sports shoes and will soon become more widely recognized and accepted.

Dr. Baycroft has continuously followed these advances in knowledge and collaborated with academic and clinical experts to apply them to foot 0rthotic therapy. He developed the Formthotics System in 2005 as means to clinically assess locomotor function in addition to the structures involved.

Dr. Ryszard Szczepanski has been working with Dr. Baycroft since 2000 and has contributed a greatly to the evolution of better methods of assessment and therapy. He has been using recently available evidence in assessing and treating his patients with enhanced outcomes. He and Dr. Baycroft have developed an improved model and method for assessment of locomotor function and therapy to optimize it. They are proposing to call this model and method Gait Optimization™. Dr. Szczepanski also identified deficiencies in the foot orthotic products currently available and he and Dr. Baycroft have found ways to improve the design and efficacy of such products. These design changes enable the products to work more successfully with the Gait Optimization™ model and method but they are also compatible with the older Biomechanical model.

A new range of devices is now being produced and will be available as the GaitTec™ brand of medical devices. These products are an upgraded and enhanced version of the Formthotics that Dr. Baycroft invented in 1980. GaitTec™ products are designed for use by Medical Therapists ONLY. They will never be available in retail channels.

A great product needs a great distributor who is interested in helping customers with education and professional support as well as selling products. AlfaCare is one of these special distributors that put people before profits. This company has grown from small beginnings in Norway and is now offering an excellent range of physical therapy products in other countries as well. The success of AlfaCare is a result of offering the best products available and helping to provide customers with training and support to help them use the products in the best way possible. Dr. Baycroft, Dr. Szczepanski and others will be working with AlfaCare to provide training and support related to Gait Optimization™ and the use and customization of the GaitTec™ medical devices. Additional devices and related products are also under development and will become available through AlfaCare once they have been refined and trialled in clinical practice.

Our story is not finished and perhaps this is just a new beginning of the search for better methods and tools for assessing and optimizing the function of the Locomotor System. There is a very serious and unsolved Epidemic of Musculoskeletal Pain and Disability which adversely affects the lives of millions of sufferers and we believe that optimizing Gait and thereby enhancing the efficiency of the Locomotor Stem has a very significant role to play in addressing this global problem.

We welcome the interest and involvement of Therapists and other people who would like to become part of the Story of GaitTec™.

Dr. Charlie Baycroft

Until recently, our theories were based on Biomechanics and concepts derived from science of Newton and the Scientific Revolution of the 17th century
We are now modifying these biomechanical theories because we understand more from Neuroscience and how this relates to our therapies.

Our modern technologies are also based on Neuroscience as well as Mechanics.
GaitTec products are designed to to promote sensory-kinetic effects that facilitate locomotor efficiency.

Gait Optimization™ is a model and method of assessing and improving Locomotor Efficiency Based on Biomechanics and Neuroscience.

The GaitTec™ products are an updated version of the original Formthotics that are designed to be a better tool for optimizing Gait and the efficiency of Locomotion.

The GaitTec™ products work just as well with the mechanical principles of therapy but are designed to have better Neuromotor effects.

Dr. Baycroft and many of his colleagues believe that understanding Locomotion and improving functional efficiency will improve the therapy for Musculoskeletal Pain and Disability.

We offer FREE education for your practice and regular follow up if needed. GaitTec is for professional use only. You will not find GaitTec in retail stores.

GaitTec Standard duo consists a soft hardness foam material with a medium top layer for cushioning and comfort without compromising functional control. Arches wearing medium type orthotics would benefit from contact and support to prevent them from becoming over-stressed. They are suit for everyday use providing flexible and functional support in all shoe types. Fits in most shoetypes like jogging shoes, hiking shoes etc.

GaitTec Sport Duo consists a medium hardness foam material with a medium top layer for cushioning and comfort without compromising functional control. Low profile with less support to the foot. They are suit for everyday use providing flexible and functional support in all shoe types. Fits in most shoetypes like jogging shoes, hiking shoes etc.

GaitTec Slim Fit is a one layer orthotics from a hard material to give maximum support. Low profile and suits also slim shoe types.

GaitTec ¾ is designed for narrow or pointed toe shoes for both men and women. It is the perfect option when full length orthotics don't fit. They are suit for everyday use, provides control and support.

GaitTec Kids using more softer foam material provides extreme cushioning and flexible support for young feet. They are designed to fit variety shoe types for growing feet.

Size Chart

Size	XS	S	M	L	XL
Shoe size	36-37,5	38-40	40,5-42	42,5-44	44,5-46,5

Size Chart Kids

Size	K1	K2	K3	K4	K5
Shoe size	25-26,5	27-29	29,5-31,5	32-34	34,5-36