

More Information For You

The Research Behind

The treatment of idiopathic clubfoot using manipulation and casting and **Botox** is the original idea of Dr. Christine Alvarez. It was approved by both the University of British Columbia Clinical Research Ethics Board and the Children's and Women's Hospital Research Review Committee and supported by the C&W Committee for Innovative Therapies. The innovative use of Botox in the setting of clubfoot also received approval from Health Canada. The investigation into this treatment began with a pilot study in 2000 and followed by subsequent trial which has shown success in clubfoot treatment. Results of this study were published in the Journal of Paediatric Orthopaedics in 2005 and the mid-term follow-up of this pilot study will be published soon in JPO.

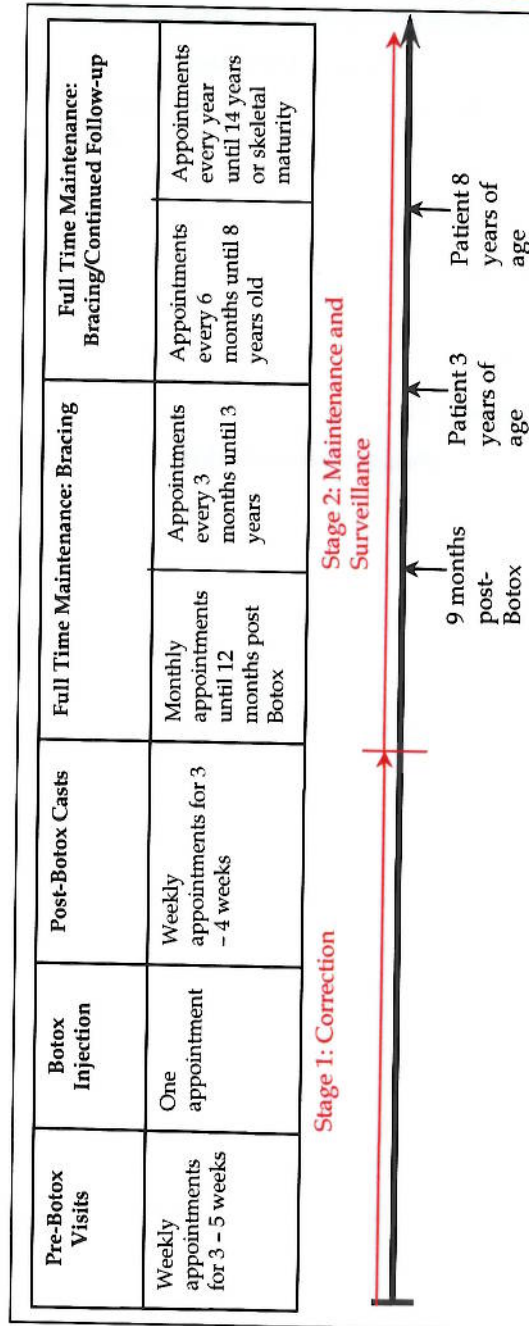
On-Going Research

There are many on-going research studies within the Clubfoot Program. Our main research focus involves continued reporting of patient outcomes. Some of the studies currently underway include:

1. Long-term follow-up of clubfoot patients treated with Botox
2. Pedobarographic (foot pressure profiles) assessments of clubfoot patients
3. Gait Analysis of clubfoot patients
4. Genetics of clubfoot

If you have any questions about any of these studies or would like to participate, please contact Harpreet Chhina at 604-875-2000 ext 6008 or send an email to hchhina@cw.bc.ca.

Appointment Schedule



British Columbia's
Children's Hospital

Clubfoot Program and Clubfoot Clinic



Information for Parents
and Guardians

About Clubfoot



Clubfoot is a condition in which the foot turns inward and points down and could involve one or both feet. It occurs in approximately 1 in every 750 babies and is two times more common in boys than in girls.

Types of Clubfoot

There are three types of clubfoot. Positional clubfeet have been held in a curved position in utero and are easily corrected by repositioning the foot. Teratologic clubfoot may be associated with other conditions such as arthrogryposis or spina bifida. Idiopathic clubfoot originates from an unknown cause.

Clubfoot Program

The British Columbia's Children's Hospital (BCCH) Clubfoot Program combines the innovative treatment for clubfoot utilizing **Botulinum Toxin A (Botox)** with on-going research activities to further the knowledge on the best care of patients with clubfoot.



The **Clubfoot Clinic** at the Department of Orthopaedics at BCCH is held every Monday afternoon and consists of a multi-disciplinary team that deals intensively with children with clubfoot and their families. The clinic combines clubfoot correction, maintenance, monitoring, and re-intervention (if needed). Patients and families have access to education, support networks, and evidence-based medicine and research. Approximately 30 clubfoot patients are seen every week by the Clubfoot Clinic team.

Botulinum Toxin A (Botox) in the Treatment of Clubfoot

Two Stages of Clubfoot Treatment Program:

Stage 1. Correction

This is the first stage of treating your baby's clubfoot and involves manipulation and casting and the possible use of **Botox** injection.

Stage 2. Maintenance

Your baby's foot will always return to a clubfoot position if the corrected position is not maintained. We will work with you and teach you how to maintain your baby's clubfoot correction.

Overview of Treatment



Manipulation and Casting

The first step of clubfoot treatment involves manipulation and casting of the foot. Dr. Alvarez will manipulate the foot into a corrected position and hold this in a soft cast. Casts are to be worn for a week until they are changed at the clinic. Your baby will be casted until we are no longer able to achieve correction at which point, we will institute Botox injection.

We will show you how to care for the casts and remove them prior to clinic visits.

Botox

The next step in the treatment is Botox injection. Botox is a drug that causes partial reversible paralysis when injected into a muscle. In clubfoot treatment, injection of Botox into the calf muscles acts to weaken the Achilles tendon so that full correction of the clubfoot may be achieved without the need for surgery. There are no reported complications or side effects from Botox injection.



Maintenance

Following Botox injection, your baby will be casted for another 3 to 4 weeks until they are big enough to fit into special bracing. Information on maintenance and bracing are available on another clinic brochure, **Stretches for Clubfoot: Out of Cast / Pre-Walking Stage**.

Who's Who at the Clinic

One of the unique features of our clinic is that we combine a multi-disciplinary team to provide care for your baby.

Orthopaedic Surgeon: Dr. Christine Alvarez (the boss)

Physiotherapist: Linda Williams

Occupational Therapist: Kim Durlacher

Orthotist: Serap Kaga

Clinical Assistant/Research: Harpreet Chhina

Office Assistant to Dr. Alvarez: Lady Marilyn Timbrell

If you have any questions about the information presented in this brochure or the clubfoot treatment program, please contact Harpreet at 604-875-2000 ext 6008 or send an email to hchhina@cw.bc.ca.