



### *The Bamboo Brace Frequently Asked Questions*

#### **What is The Bamboo Brace?**

The Bamboo Brace is a pediatric elbow brace that was developed over the years of providing physical therapy to children with cerebral palsy and other developmental challenges. The Bamboo Brace assists children in maintaining a more extended position at the elbow during activities so that both gross and fine motor skills are easier to perform, learn and repeat. Although it controls the amount of bending at the elbow joint it also allows for some flexibility with its unique design (see FAQ #9 “What is Dynamic Elbow Bracing?”)

Depending on the size ordered, each Bamboo Brace contains either 4 or 5 flexible and interchangeable support stays. You choose which stay to use depending on the desired resistance. The Bamboo Brace is available in 4 sizes accommodating children from as young as 2-3 months up to about 18 years of age.

#### **Why is it called The Bamboo Brace?**

People love the name and we get asked this question often. The Bamboo Brace gets its name from the properties of “bamboo” that it resembles. Like the natural plant, The Bamboo Brace is flexible yet stiff and is quite resilient with repeated use. The Bamboo brace does not contain any organic bamboo plant materials.

#### **How is this brace different than others on the market?**

During our careers in pediatric physical therapy we continually searched for an elbow brace that promoted, rather than interfered with motor skill development. We could not find anything that was dynamic in nature, that didn’t slide up and down the patient’s arm or that wasn’t custom molded thus very expensive and not adjustable for growth. We finally decided to create exactly what we were looking for and over the course of about 5 years developed The Bamboo Brace.

Here is what makes The Bamboo Brace design unique:

- Depending on the size ordered, each Bamboo Brace contains either 4-5 interchangeable stays that offer different amounts of resistance – the therapist or

caregiver can choose which stay to use depending on the child's needs.

- It is a snug fit that can easily be worn under clothes.
- It has a non-slip surface to minimize misalignment.
- Each size of the brace accommodates for growth
- It is affordable

If you look around you will find other braces that are too rigid offering only one choice of resistance, too bulky or heavy and unable to fit under clothes, constantly sliding or spinning out of position, or those that are very expensive that require custom fitting and frequent modification. The Bamboo Brace is a favorite amongst therapists and caregivers since it addresses these issues and provides optimal performance. Our guarantee is that if you are not satisfied with The Bamboo Brace then you may return it for a full refund within 60 days.

### **How do I put The Bamboo Brace on my child?**

The Bamboo Brace is easy to apply, with its snug fit design. After selecting the desired stay and placing it through the slit on the interior of the brace, straighten out your child's arm and place the stay area of the brace directly on the inside of the arm at the elbow joint where the elbow naturally bends. The center of the brace is positioned where the elbow bends and the brace is divided evenly above and below the elbow joint. Secure the brace by attaching the Velcro tab(s) and adjusting the fit as necessary to keep the brace from sliding up or down or rotating around the arm. Although The Bamboo Brace can be applied snugly be cautious not to impede the circulation by applying it too tightly around the arm. Color or circulatory changes in the hand and fingers are an indication that the brace may be applied incorrectly.

### **Who can benefit from The Bamboo Brace?**

- Any child who has a predominant flexion (bending) pattern at the elbow that is slowing motor development.
- Any child who is unable to bear weight through their arms or support themselves for crawling and other developmental motor activities.
- Any child with a progressive neurodegenerative disease.
- Any child who presents with spontaneous hand movements or incessant hand mouthing.
- Any child who has recently had surgery on the head, neck and face to keep them from removing sutures or bandages and damaging the surgical site. (See FAQ #8 "What are

some other popular uses of The Bamboo Brace other than helping children learn motor skills?”)

A list of some common diagnoses for which The Bamboo Brace is helpful:

Cerebral Palsy

Developmental Delay

Spinal Muscular Atrophy

Low muscle tone

Autism and Pervasive Development Disorder

Down Syndrome

Prader-Willi Syndrome

Rett Syndrome

Post-surgical patients: cleft palate, plastics, ear/nose/throat, and dental

Sensory Processing Disorder

Brachial Plexus Injury

### **Can I use The Bamboo Brace for Constraint Induced Movement Therapy (CIMT) for my child with hemiplegia?**

I believe the biggest strength of the brace is when it is used dynamically to assist with alignment and inhibition of flexion patterns while allowing for the desired muscle groups to fire during function with the affected side. Preventing most of the flexion but still allowing 15-30 degrees, or a bit more as needed by the child for enhancing both weight-bearing transitions in all ages as well as bi-manual activities in children with hemiplegia.

With that said, we receive countless emails and phone calls from therapists and parents who want to put the most rigid stay in the brace, wrap the unaffected hand and use it on the unaffected side as the actual constraint. This, I don't believe is the best way to use the brace and it is most recommended for whichever constraint system being used to constrain the unaffected elbow at 90 degrees. Since The Bamboo Brace enhances elbow extension I would generally not recommend it as the restraint for the unaffected side in children with hemiplegia.

When used on the affected side, however, it does a wonderful job of reducing most of flexion synergy at the elbow so that we can make gains at the shoulder and trunk. In more moderate kids when used during CIMT treatment, I believe it allows more quality

shoulder and trunk reps without nearly as much synergy interference and frustration. Then like any good tool, I remove it and try to foster the same reps unbraced. Its a great, easy to use home program adjunct for parents that can be applied as frequently as recommended by physical and occupational therapists.

### **Why is The Bamboo Brace in learning motor skills?**

With cases of flexor spasticity (bending) at the elbow, The Bamboo Brace allows children to learn how use the separate joints of the arm and trunk individually without as much interference from unhelpful elbow patterns. As children learn to control each joint separately their freedom of motion, strength, and function improves as well as their ability to bear weight through their arm(s). This makes activities like rolling, sitting, crawling, standing and walking more possible.

In children with low muscle tone, decreased strength or the inability to bear weight through their upper extremities on their own for whatever reason, The Bamboo Brace helps to provide the stability at the elbow joint. This stability is essential in weight bearing and the development of gross and fine motor skills as listed above.

### **What are some other popular uses of The Bamboo Brace other than helping children to learn motor skills?**

The Bamboo Brace's flexibility makes it a superior choice to more rigid braces and restraints because it still allows children use of the extremity while still preventing unwanted interaction with the head, neck, face and mouth for a variety of situations such as:

- Pre and post-surgically to help keep children from disturbing oral prosthetics, facial sutures, incisions and removing IV's without completely limiting upper extremity use.
- For Rett Syndrome and other diagnoses where mouthing and hand wringing often causes skin breakdown.

Keeping younger children who are having difficulty learning to wear hearing aides or eyeglasses from spontaneously removing them.

### **What is Dynamic Elbow Bracing?**

Dynamic elbow bracing is the motor therapy technique of placing a stiff, yet flexible enough brace on the arm to help improve elbow angles so that children with special needs have an easier time learning and reaching motor milestones. In our treatment

experience dynamic elbow bracing means that the brace is helping the elbow move in and out of positions along with the child being active in the process. If the movement process is active and dynamic this means the combination of the child and the brace working together produce functional results that matter.

It may sound obvious, but the key is making sure the brace is 'dynamic' meaning that it can flex and bend to some degree and can be adjusted to the needs of the child. The opposite of course is a "static" brace that is placed around the elbow joint in a fully extended position and prevents any kind of movement or natural bending of the elbow. Static braces might help align the elbow for motor skill development but they do not allow the child to repeat the necessary joint movement and muscle contractions to actually learn the movement. Static braces passively position the elbow in straighter angles but they are too stiff to allow the child to fire the necessary muscles during motor learning.

With a dynamic and flexible product like The Bamboo Brace the child actively strengthens muscles in the upper and lower arm, by producing the muscle power necessary to learn rolling, sitting, crawling, standing and walking.

### **What are some "motor skills" my child can improve on by using The Bamboo Brace?**

- Rolling (stomach to back and back to stomach)
- Sitting using the more extended arm(s) as needed to help prop and bear weight for play, eating and daily skills
- Two handed play and assisted play
- Hands and knees, crawling and kneeling
- Transitioning to ½ kneeling and standing (pulling up at furniture and stair climbing)
- Cruising (sideways walking) along furniture and household objects
- Hand-held walking and using assistive devices such as walkers and push toys
- Independent walking (will free up core muscles for rotation and balance)
- Assistive climbing for accessing park and playground equipment
- Bike riding, racket sports and other age appropriate play that requires two hands out front

### **Should The Bamboo Brace be worn over clothing or directly on the skin?**

Although The Bamboo Brace can be worn over clothing, the non-slip surface on the inside of the brace is more effective when it is in direct contact with the child's skin.

### **How tight should The Bamboo Brace be worn?**

Once the stay area is in place wrap the brace around the arm and Velcro securely. The Bamboo Brace should be snug enough not slip up and down the arm but should not be so tight that circulation is impaired and there are color changes evident in the hand and fingers.

**Can The Bamboo Brace be used on both arms at the same time?** Yes. The Bamboo Brace is used both unilaterally (1 arm) and bilaterally (2 arms) and usually depends on the specific diagnosis and situation of each child.

Children with spastic diplegia and quadriplegia Cerebral Palsy often use one Bamboo Braces on each arm during treatment and for periods during the day when they are working on motor skills that require the elbows to be more extended.

It is also common for children who have lower muscle tone, muscle weakness and instability such as those with Down syndrome, Sensory Processing Disorder and other genetic and metabolic diagnoses to use The Bamboo Brace on both arms at the same time.

The Bamboo Brace is also often used on both sides when children are healing from head, neck, facial and dental surgery or self-stimulate orally such as with Rett Syndrome.

### **How do the flexible stays work and which should I start with?**

The included stays increase in stiffness from 1 to 5 (or 4 depending on brace; The higher the number the more rigid the stay). We recommend starting with stay #3 and adjusting the flexibility of the brace as needed. Once in place begin monitoring your stay selection for effectiveness. It is recommended that the brace be stiff enough as to straighten the elbow toward more extension, however flexible enough so that the child can overcome it as needed to use for fine motor play and daily skills. The goal is to prevent dominant flexion patterns at the elbow of 90 degrees or more and instead restore a more relaxed position of about 30 degrees of elbow flexion during motor activities.

**Can I use multiple stays in The Bamboo Brace at the same time?**

Yes. The sleeve where the stay is located is designed to be able to fit multiple stays if your child's situation calls for it. We generally recommend that you keep the brace more dynamic and flexible as opposed to more rigid, however, sometimes the combination of more than one stay works excellent.

**Can I use The Bamboo Brace without a stay?**

Absolutely! Sometimes just the material of the brace can prevent unhelpful elbow flexion. In children with more mild forms of cerebral palsy and many children with genetic and sensory diagnoses that have low muscle tone without spasticity you may be able to progress to not wearing a stay in The Bamboo Brace. As always, the general guideline is to keep children from flexing the elbow more than about 70 degrees while in weight bearing positions.

**How do I wash and care for The Bamboo Brace?**

Do not machine wash or machine dry The Bamboo Brace. We recommend that you hand wash your Bamboo Brace with the stay removed in warm water and mild soap.

Be sure to rinse thoroughly and remove all detergents and cleaning agents that may be an irritant to your child's skin. After washing, The Bamboo Brace should be left to air dry and should not be worn until it is completely dry.

**Do I need to send measurements?**

No you do not need to send measurements. You can refer to our sizing description in (FAQ #3) or when ordering and make a measurement of your child's arm at home. If you purchase the wrong size you can exchange your brace in it's original packaging within 60 days (less shipping costs).

**Does The Bamboo Brace contain latex, phthalates or lead?**

No. The Bamboo Brace is FDA approved and complies with the Consumer Product Safety Information Act (CPSIA) of 2008. The Bamboo Brace is BPA-free, lead-free and phthalate-free.

**What is your return policy for The Bamboo Brace?**

You may return or exchange your Bamboo Brace within 30 days for any reason, less shipping charges.