Instructions for Boston Brace 3D Order Form

Reminder – this form is for the technicians and goes with the flow of fabrication. All items on this form need to be completed to ensure customer service and manufacturing are able to fabricate the desired orthosis.

PLEASE DO NOT use this as your clinical note.

Demographics:

Boston Brace 3D Order Form

Date:_____ Due Date:_____ PO #:_____ Contact:_____

Ship To:_____ Ship Via:_____ Email:_____

Address:_____ Account #:_____ Phone:_____

City:_____ State:_____ Zip:_____ ☐ Previous 3D Wearer   Scan Label:_____

Patient Name:_____ Ht: ____ft____in Wt:_____lbs

Age:_____ Sex:_____ Diagnosis:_____

Customer service uses this section to initiate the fabrication process. All of the above is entered into our system. In the event we need to contact you, the treating orthotist, or if you have a question on the fabrication, having this information entered allows for easy retrieval.

The highlighted area above needs to be completed. We will keep a secondary record for you showing the patient's age, sex, height and weight as well as the diagnosis. Height and weight are needed in the event a second brace is required. By having this noted on the work order, it serves as a backup for your clinical record.

Previous 3D Wearer:

This notifies the technician to review potential previous finish orders. At times, a scoliosis curve may change and thus the design of the brace may change. If there is a change, it allows us to notify the clinician of design changes.
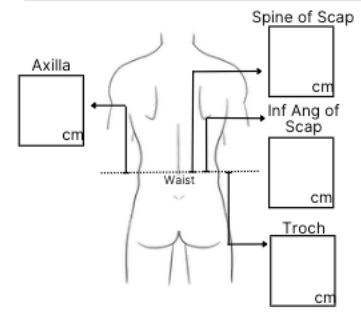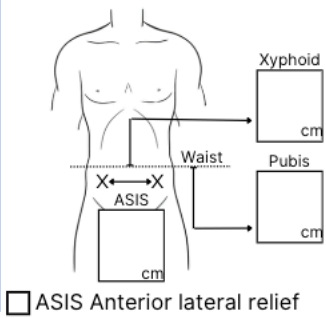
Measurements:

We no longer require circumferential, ML or AP measurements. Scan label is required to make sure the correct scan is modified.

Anatomical Measurements
*All measurements required for BIVALVE SCANS

	Cir.	M/L	A/P
Axilla	cm	cm	
Xyphoid	cm	cm	cm
Waist	cm	cm	cm
Trochanter	cm	cm	cm

Xyphoid __ cm
Waist / ASIS X←→X
Pubis __ cm
__ cm
☐ ASIS Anterior lateral relief

Axilla __ cm
Spine of Scap __ cm
Inf Ang of Scap __ cm
Waist
Troch __ cm

Required	Lumbar/TL	Thoracic
Convexity	☐Left ☐Right	☐Left ☐Right
Apical Vertebra		
Cobb Angle		
Scoliometer Reading		

Required	Lumbar/TL	Thoracic
Convexity	☐Left ☐Right	☐Left ☐Right
Apical Vertebra		
Cobb Angle		
Scoliometer Reading		

The above chart must be fully completed to monitor outcomes and provide guidance for shift/push magnitudes. Indicate the side of the curve convexity (left or right). Please indicate the numerical values for Apical vertebra, Cobb angle, and scoliometer reading in the designated box. Apical vertebra: denote the apical vertebra for the curve(s) (Example- T9 or L3). Cobb angle: indicate the angle of the selected curve(s) in degrees (Example: 35deg). Scoliometer reading: document your findings from the scoliometer reading to determine the degree of rotation of the curve(s) (Example: 9 deg). Both the Cobb angle measurement and the scoliometer reading will help to determine the push magnitude built into the brace.

Brace Design

Opening
☐ **Posterior**
☐ Anterior w/tongue

Liner
☐ **3/16" Aliplast**
☐ Unlined
☐ 1/8" Partial Liner

Plastic
☐ **5/32" Copoly**
☐ Other: _____

Straps
☐ White
☐ Black

Pads
☐ .5" Installed
☐ .5" Un-Installed
☐ Unfinished Pads

Lumbar Reinforcement
☐ Left ☐ Right

Transfer
1st_____
2nd_____

☐ Gusset

Boston Sensor

☐ Send Sensor
☐ Sensor Hole

Opening

There are two options for the opening –posterior or anterior with tongue. The posterior opening is the standard.

Liner and Plastic

Standard liner choice is 3/16" aliplast. Unlined provides the most low-profile orthosis. The partial liner consists of foam just superior and inferior to the waist. Crest rolls are included. Plastic is 5/32" Copoly.. If a different plastic or liner choice is desired, write it in the "other" option.

Straps

Indicate the color of the straps requested by the patient. White straps are the standard.

Pads

Pads are pre-trimmed and skived per the curve pattern and brace design. Pads may be pre-installed to ease the fitting process. Installed .5 pad is the standard.

Lumbar Reinforcement

The lumbar reinforcement is defined as a built-in corrugation positioned vertically just lateral t   r opening that assists in maintaining the lumbar push.
This is not a standard for the Boston Brace 3D. However, when treating patients with a higher BMI, an unlined or partially lined brace where primary lumbar control is needed, a reinforcement may be necessary.
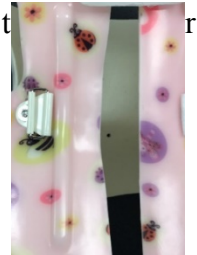
Transfer:

Brace transfers can be chosen in this section. Strap transfers are no longer an option here as they decrease the life and integrity of the straps. Indicate a second-choice option in the event the first choice is not available.

Boston Sensor: The Boston Sensor adherence monitor is standard of care for the Boston Brace 3D. Indicate if the patient/parent agrees to have the Boston Sensor installed or not.

Send Sensor: The Boston Sensor with instructions for launching and downloading adherence data will be sent with the orthosis. This is for patients that have consented to having a sensor installed into their orthosis.

Sensor Hole: A hole is drilled in the center of the anterior section of the orthosis unless otherwise specified in the notes section of the order form.

The section below is optional – <u>If you complete it, it needs to be FULLY filled out.</u> If left blank fabrication will complete per standards based off scan and X-ray.

CAD Design Section (OPSB Staff Only)

Lumbar/TL
☐ Left ☐ Right
☐ Pad Only

Apex ____ cm
Apex ____ cm
*LEV ____ cm
Waist
*LEV ____ cm

☐ TL Extension
Height_____cm

Apex ____ cm
*LEV ____ cm

*Lower End Vertebra

Thoracic Extension
☐ Left ☐ Right
Height_____cm

☐ 4-5 Pad
☐ TL Window

Axillary Modifications
☐ Left ☐ Right
☐ Outset Axilla : _____ mm
☐ Inset Axilla : _____ mm

☐ Posterior Extension

| LAB USE ONLY			**Finished Heights** *from waist		**Notes:**
CAD	OVEN	DESIGN	Xyphoid:____ cm Axilla: ____ cm		
☐	☐	☐	Pubis: ____ cm Inf Ang Scap:____ cm		
FINISH	PADS	QC	Trochanter: ____ cm		
☐	☐	☐	↳ ☐ Left ☐ Right		

Lumbar/Thoracolumbar (TL); Thoracic

Indicate the side of the curve, left or right. If a lumbar or thoracolumbar curve does not exist leave this section blank.

Thoracic Extension: This is the length from waist to the midline (the midpoint of the Anterior/posterior dimension of the patient) of the rib corresponding to the apical vertebra. The height of the extension is determined by analyzing both the radiograph and clinical presentation of the patient.

Axillary Modifications:
Indicate left or right side.

The axillary modifications consist of either an outset or inset axilla. The inset axilla may also be coupled with a posterior extension.
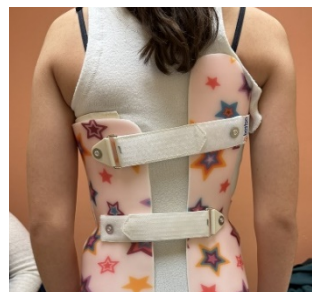
<u>**Outset Axilla**</u>

Used in thoracolumbar and low (T11 presenting like a thoracolumbar) thoracic curves when the patient is decompensated to same side as the curve. It consists of a lateral (under arm) section. It provides a counter force to the primary thoracolumbar extension but does not restrict the patient from shifting in the coronal plane.

<u>**Inset Axilla**</u>

Used for single thoracic and double curves. The under-arm section generates a medially directed vector and is rectangular in shape to allow for a large window relief. Useful when a medially directed vector is needed for decompensation and or the patient presents with a high waist and short torso and additional height of the thoracic window is needed.

<u>**Thoracolumbar (TL) Extension:**</u> Indicate if a TL extension is needed. For TL curves where the vertebral bodies that make up the curve are all to the left or right of the CSL, a TL extension is recommended to help with the coronal plane correction. A TL extension is also recommended for a single thoracic curve with a compensatory lumbar curve that is linearly deviated from the CSL to the opposite side of the thoracic curve. The extension in this case acts as a hold to prevent the lumbar curve from further shifting away from CSL.

After blue printing the x-ray, transfer the linear distances from waist to apical vertebra and lower end vertebra for both the TL/L curve and Thoracic curve. If no curve exists, NA is added to the boxes.

4-5 Pad/TL Window: Patients that present (examples below) with a primary Lumbar or Thoracolumbar curve with an upper thoracic curve where the thoracic spine is along or off to the same side as the lumbar/ thoracolumbar spine are candidates for a 4-5 pad and TL window. These two are typically provided together.
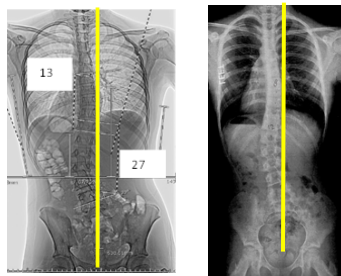
The 4-5 pad is named for the templates used for these curve types (numbers 4 and 5). The 4-5 pad is a thoracic pad that is full thickness from the mid-point between the posterior trim line and the lateral aspect of the orthosis to the midpoint between the lateral aspect and the mid-sagittal point of the thoracic extension. Its purpose is to provide a de-rotational force only, and not block the patient from moving medially in the orthosis. (see photo)

Mid-Sagittal

4-5 Thoracic
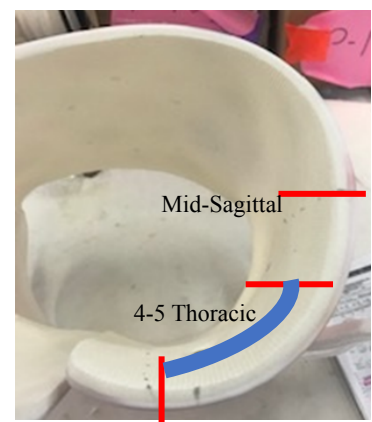
The TL Window is the opening opposite the Lumbar/Thoracolumbar push/shift/pad. It allows the patient to shift in the coronal plane. The photo on the left shows the pre-fit TL window, the photo on the right shows the modified window at final delivery. See the clinical standards for further details on finishing the window at the fitting.

Posterior Extension

The posterior portion controls shoulder rotation and is trimmed between spine of scapulae and mid-scapulae. It is useful when the patient presents with a posteriorly rotated shoulder girdle.

Finish heights from waist: Finished heights have been reorganized and simplified. They go from lateral to posterior to anterior (all superior to inferior). All measurements are in centimeters. The anatomical lengths provided above are used for modifying the scan, these measurements are used to finish the orthosis.

Scoli Tees

If providing the patient with a Boston T-shirt to wear under the brace, indicate the style (single or double underarm flap) and the quantity. The size is determined from the submitted measurements. We no longer offer silver tees.

Scoli Tees
☐ Single ☐ Double Qty:_____