

# Boston Brace 3D Measurement form and Instructions

[Print Form](#)

**BOSTON BRACE 3D ORDER FORM**

Date: \_\_\_\_\_ Due Date: \_\_\_\_\_ Contact: \_\_\_\_\_  
 Ship To: \_\_\_\_\_ Account: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Address: \_\_\_\_\_ PO#: \_\_\_\_\_ Fax: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Ship Via: \_\_\_\_\_ Email: \_\_\_\_\_

Patient Name: \_\_\_\_\_ First Time Wearer:  Yes  No  
 If no, specify Troch/Axillary

Age: \_\_\_\_\_ Sex:  M  F Ht: \_\_\_\_\_ ft. \_\_\_\_\_ in. Wt: \_\_\_\_\_ lbs. Diagnosis: \_\_\_\_\_  
 Auxiliary Extension:  Left  Right  
 Troch Extension:  Left  Right

**\*\*Bivalve scans require measurements below**

**Measurements (cm)**

Scan Label: \_\_\_\_\_

Circ.  ML  A/P  
 Axilla  Xyphoid  Waist  Trochanter

ASIS anterior lateral relief

	Lumbar/TL	Thoracic
Apical vertebra		
Cobb angle		
Scolometer reading		

Chart completion **Necessary** for brace fabrication

**Scol T's** (Customer Service will determine the right size for your patient based off the measurements provided)

White  Single  Double  Quantity: \_\_\_\_\_  
 Silver  Double

Opening  Liner  Plastic  Transfer  Pads  Gusset  Straps  Button

Posterior  3/16" allplast  5/32" copoly  Brace: \_\_\_\_\_  -5" Installed  No  White  Sand  Button  Yes  No  
 Anterior  Unlined  Other: \_\_\_\_\_  -5" un-installed  Yes  Black  Drill Hole in Plastic  Yes  No  
 1/8" Partial Liner  Lumbar Reinforcement:  Yes  No  Other: \_\_\_\_\_  Foam cut out only

CLINICIAN ↑ BOSTON O&P ↓

**Lumbar / TL**  Left  Right TL Extension:  Yes  No Height \_\_\_\_\_ cm

**Thoracic Extension**  Left  Right Height \_\_\_\_\_ cm

CAD specs determined by Boston O&P

Axillary Modifications  Left  Right  
 Outset Axilla: \_\_\_\_\_ mm  Inset Axilla: \_\_\_\_\_ mm  
 Posterior Extension:  Yes  No

**Finish Heights (from waist)**  
 Xyphoid: \_\_\_\_\_ Axilla: \_\_\_\_\_  
 Pubis: \_\_\_\_\_ Inf Angle Scap: \_\_\_\_\_  
 Seat: \_\_\_\_\_ Troch:  Left  Right

Notes: \_\_\_\_\_

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**Video review of the measurement form instructions:** [Boston Brace 3D order form instructional video](#)

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.

Items in **bold** represent our standard option

PLEASE DO NOT use this as your clinical note.

## Demographics:

Date:	<input type="text"/>	Due Date:	<input type="text"/>	Contact:	<input type="text"/>
Ship To:	<input type="text"/>	Account:	<input type="text"/>	Phone:	<input type="text"/>
Address:	<input type="text"/>	PO#:	<input type="text"/>	Fax:	<input type="text"/>
City:	<input type="text"/>	State:	<input type="text"/>	Zip:	<input type="text"/>
		Ship Via:	<input type="text"/>	Email:	<input type="text"/>

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.

Patient Name:	<input type="text"/>	First Time Wearer:	<input type="checkbox"/> Yes	<input type="checkbox"/> No												
			If no, specify Troch/Axillary													
Age:	<input type="text"/>	Sex:	<input type="text"/>	Ht:	<input type="text"/>	ft.	<input type="text"/>	in.	Wt:	<input type="text"/>	lbs.	Diagnosis:	<input type="text"/>	Axillary Extension:	<input type="checkbox"/> Left	<input type="checkbox"/> Right
														Troch Extension:	<input type="checkbox"/> Left	<input type="checkbox"/> Right

## Patient Name, Age, Sex, Height, Weight, Diagnosis

We will keep a secondary record for you showing the patient's age, sex, height and weight as well as the diagnosis. This information may assist in justifying a new orthosis.

Make sure the patient's name is legible.

Age and Sex are needed to complete our records in the event you need the manufacturing record. Height is broken down into feet and inches to ensure proper record keeping. Weight is requested to be in pounds. Diagnosis is needed to complete records.

## First Time Wearer:

Indicate if this is the first scoliosis brace for the patient. If it is a first brace, check yes, and proceed to the measurements section. If it is not the first brace, indicate the current placement of the Axillary and Troch Extensions. This will allow the CAD team to know if a brace design change will occur so they can notify the fitting clinician.

## Measurements:

Must be completed when taking a bivalve scan

**\*\*Bivalve scans require measurements below**

	Circ.	M/L	A/P
Axilla			
Xyphoid			
Waist			
Trochanter			

**Measurements (cm)**

Scan Label: \_\_\_\_\_

	Lumbar/TL	Thoracic
Apical vertebra		
Cobb angle		
Scoliometer reading		

Chart completion **Necessary** for brace fabrication

**Scoli T's** (Customer Service will determine the right size for your patient based off the measurements provided)

<input type="checkbox"/> White	<input type="checkbox"/> Single	Quantity: <input type="text"/>
<input type="checkbox"/> Silver	<input type="checkbox"/> Double	

ASIS anterior lateral relief

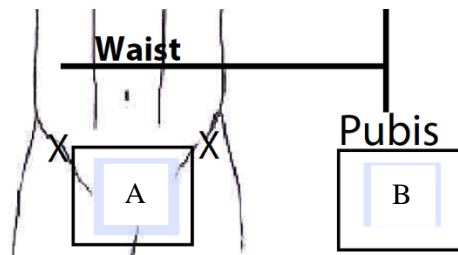
We no longer require circumferential, ML, AP or linear measurements when taking a single standing scan of the patient. This includes the ASIS to ASIS measurement.

If taking a bivalve scan, all measurements are required: circumferential, ML, AP and linear measurements to the anatomical landmarks.

### Linear Measurements

Linear measurements are to the anatomical landmark regardless of scan type. The axilla measurement is to the maximum height under the arm needing an axillary extension. If, as is the case of a Thoracolumbar curve, the axilla may be well below the maximum axillary measurement, please provide the maximum height to assist in fabrication. The finish height section will assist in determining the finish measurements.

### ASIS measurements

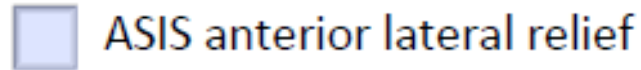


If ASIS to ASIS linear measurement (A) is provided, using a cloth tape measure to follow the patient's body contours is recommended.

Waist to pubis measurement (B) is measured using the linear measuring device.



## ASIS anterior lateral relief



ASIS anterior lateral relief box is checked for patients requiring additional relief at the anterior lateral aspect of their ASIS.



## Scan label

Scan Label:

Scan label is required to make sure the correct scan is modified.

Captevia: File name is auto-populated. Write Captevia as the scan label. The file will include both scans if taking a bivalve scan.

Laser scanner: Patient's first initial, last name; scan number; clinicians' initials; the word scoli; date of scan

i.e. patient John Smith is seeing clinician Jane Doe on April 1, 2020 for his first brace.

Scan Label: jsmith#1jdscoli04012020

Bivalve scan: Follow the sequence above and add \_ant and \_post after the date

Anterior Scan: jsmith#1jdscoli04012020\_ant

Posterior Scan: jsmith#1jdscoli04012020\_post

All other linear measurements are needed for fabrication and design.

## Clinical Measurements

	Lumbar/TL	Thoracic
Apical vertebra	<input type="text"/>	<input type="text"/>
Cobb angle	<input type="text"/>	<input type="text"/>
Scoliometer reading	<input type="text"/>	<input type="text"/>

Chart completion **Necessary** for  
brace fabrication

The above chart must be fully completed to monitor outcomes and provide guidance for shift/push magnitudes. 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.

## Scoli T's

**Scoli T's** (Customer Service will determine the right size for your patient based off the measurements provided )

White     Single    Quantity:   
 Silver     Double

Indicate if you are providing the patient with a Boston Scoliosis T shirt.

Standard or silver (note that the silver is not to be worn when having an MRI). Also, there are two underarm flaps or a single. The T-shirts do not have a front or back, so a single axilla can be left or right. The size is determined from the submitted measurements.

## Boston Brace 3D design

Opening	Liner	Plastic	Transfer	Pads	Gusset:	Straps	iButton
<input type="checkbox"/> Posterior <input type="checkbox"/> Anterior	<input type="checkbox"/> 3/16" aliplast <input type="checkbox"/> Unlined <input type="checkbox"/> 1/8" Partial liner Lumbar Reinforcement: <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> 5/32" copoly <input type="checkbox"/> Other: _____	Brace: _____	<input type="checkbox"/> .5" Installed <input type="checkbox"/> .5" un-installed <input type="checkbox"/> Other: _____	<input type="checkbox"/> No <input type="checkbox"/> Yes	<input type="checkbox"/> White <input type="checkbox"/> Black	Send iButton <input type="checkbox"/> Yes <input type="checkbox"/> No Drill Hole in Plastic <input type="checkbox"/> Yes <input type="checkbox"/> No Foam cut out only <input type="checkbox"/>

### Opening

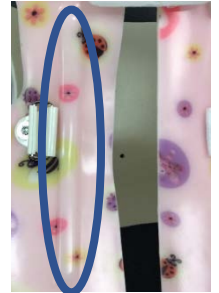
There are two options for the opening – anterior or posterior. Let us know your patient's preference.

### Liner and Plastic:

Standard liner choice is 3/16" aliplast. Unlined provides the most low-profile orthosis. The partial liner consists of 1/8" foam just superior and inferior to the waist. Crest rolls are included. Plastic is 5/32" copoly. We find that this works for 90% of the patient population. If a different plastic choice is desired, write it in the "Other" section.

### Lumbar Reinforcement:

The lumbar reinforcement is defined as a built-in corrugation positioned superior to inferior just lateral to the posterior opening that assists in maintaining the lumbar push. 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:

Patients may choose their transfer using the Boston O&P transfer tool. (<https://www.bostonoandp.com/transfers/brace/>). Write the brace *transfer name* in this section.

### Pads

Pads are pre-trimmed and skived per the curve pattern and brace design. Pads may be pre-installed to ease the fitting process. Let us know how you want to receive your .5-inch pads.

### Gusset:

The gusset is an elastic cover for the window. If a gusset is chosen, the color will match the strap choice.

## Straps:

Standard straps are white. Indicate the color of the straps requested by the patient. Strap transfers are no longer an option here as they decrease the life and integrity of the straps.

## iButton:

### iButton

Send iButton  Yes  No

Drill Hole in Plastic  Yes  No

Foam cut out only

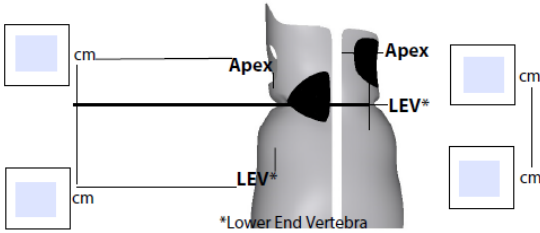
The iButton adherence monitor is standard of care for the Boston Brace 3D. iButtons may be transferred to a patient's subsequent brace.

Indicate if an iButton is to be sent with the brace.

If the patient has an iButton, and just needs to have the hole drilled into the brace, check no to send the iButton, and yes to drill a hole in the plastic.

If you only want the foam removed from the brace, regardless of whether an iButton is to be sent or not, and no hole drilled into the plastic, check the foam cut out only.

## The section below is your choice – Boston O&P can complete this section or you can specify the brace design

CLINICIAN ↑		BOSTON O&P ↓			
<b>Lumbar / TL</b> <input type="checkbox"/> Left <input type="checkbox"/> Right TL Extension: <input type="checkbox"/> Yes <input type="checkbox"/> No Height <input type="text"/> cm		<i>CAD specs determined by Boston O&amp;P</i>  *Lower End Vertebra		<b>Thoracic Extension</b> <input type="checkbox"/> Left <input type="checkbox"/> Right Height <input type="text"/> cm	
<b>Axillary Modifications</b> <input type="checkbox"/> Left <input type="checkbox"/> Right Outset Axilla: <input type="text"/> mm Inset Axilla: <input type="text"/> mm Posterior Extension: <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>Finish Heights (from waist)</b> Xyphoid: <input type="text"/> Pubis: <input type="text"/> Axilla: <input type="text"/> Inf Angle Scap: <input type="text"/> Seat: <input type="text"/> Troch <input type="checkbox"/> Left <input type="checkbox"/> Right		<b>Notes:</b> <div style="border: 1px solid black; height: 100px; width: 100%;"></div>	
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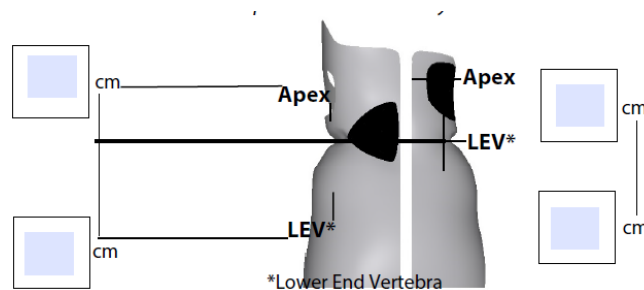
## Lumbar/Thoracolumbar (TL); Thoracic

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

### Thoracolumbar (TL) Extension:

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. Height indicates the mid-sagittal length from waist.

### Schematic drawing



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

### Thoracic Extension:

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**Thoracic Extension**

Left    Right

Height  cm

Indicate if a left or right thoracic extension is needed.

The height length is from waist to the midsagittal height (the midpoint of the Anterior/posterior dimension of the patient) of the rib corresponding to the apical vertebra. Always evaluate your patient and using your hands, verify the height of the extension. There are times, in larger more



linearly deviated curves, that the extension may be above the midpoint of the apical rib. The height of the extension is determined by analyzing both the radiograph and clinical presentation of the patient. Height indicates the midsagittal length from waist.

### Axillary Modifications:

**Axillary Modifications**

Left  Right

Outset Axilla: \_\_\_\_\_ mm

Inset Axilla: \_\_\_\_\_ mm

Posterior Extension:  Yes  No



The axillary modifications consist of either an outset or inset axilla. The inset axilla may also be coupled with a posterior extension. Indicate left or right side.

### Outset Axilla

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. The height is at the level of the inferior angle of scapula.

### Inset Axilla

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.

### Posterior Extension

The posterior portion controls shoulder rotation and is trimmed 3cm superior to the axillary height.

It is useful when the patient presents with a posteriorly rotated shoulder girdle

## Finish heights from waist:

**Finish Heights (from waist)**

Xyphoid:	<input type="text"/>	Axilla:	<input type="text"/>
Pubis:	<input type="text"/>	Inf Angle Scap:	<input type="text"/>
		Seat:	<input type="text"/>
		Troch	<input type="checkbox"/> Left <input type="checkbox"/> Right

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.

### Notes

**Notes:**

In the event a special request is made by the patient, or there is some unique anatomy or brace design needed that is not captured in the above sections, the notes section is where you may document this information.