Socket-less Socket™
Bikini Socket™

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Introduction to the Socket-less Socket™, Bikini Socket™:

Instead of encapsulating the entire pelvis with a thick bulky bucket, our patented, lightweight Bikini Socket™ and ultra-conforming Iliac Crest Stabilizers™ provide a more direct biomechanical link between the prosthesis and its user; resulting in superior stability, comfort, and quality of life for hip disarticulation and hemipelvectomy users.

It is rare to find a user who prefers a rigid bucket socket over the more conforming and breathable Bikini Socket™. Not only does the Bikini Socket™ uniquely provide comfort, but its conformity helps maintain much more comfort through the life of the prosthetic, even with limb volume gain or loss.

The unique open socket design dissipates heat and keeps the limb cool, which eliminates sweating issues for most users. The Bikini Socket™ also offers a typical weight reduction of several pounds - at 1/3 the size and 1/3 the weight of conventional bucket sockets.

Sitting with a hip-level prosthetic and even bending forward to tie shoes no longer results in unwanted impinging of the socket into the abdomen or rib cage. In addition, the Bikini Socket™ eliminates the feeling of sitting on a bulky hump of plastic, and sits flat.

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How To Order the Bikini Socket™:

Web: MartinBionics.com/Order

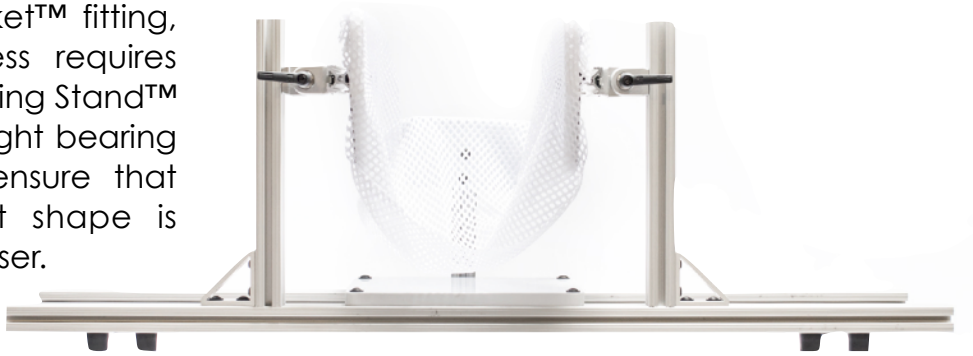
Phone: 844-MBIONIC (844.624.6642) or 405.839.7326 X729

Email: orders@MartinBionics.com

The Bikini Socket™ kit includes one set of our Iliac Crest Stabilizers™. They can easily be assembled onto your own check socket within your clinic. Some practitioners keep the off-the-shelf Iliac Crest Stabilizes™ on-hand to offer real-time fittings for their patients. The Iliac Crest

Stabilizers™ are adjustable in size and shape for most patient, and can be special ordered in pediatric sizes as well.

To do a Bikini Socket™ fitting, the casting process requires the Hammock Casting Stand™ to capture the weight bearing limb shape and ensure that the check socket shape is correctly fit to the user.



Clinical Services Support:

Martin Bionics now includes Clinical Services support along with the purchase of the Socket-less Socket™ technology so that our trained and experienced clinicians can help ensure that every Socket-less Socket™ user achieves maximum comfort outcomes. Martin Bionics can coordinate to do the fitting alongside you via Zoom or Facetime video-call support.

Schedule a phone or video Consultation or Clinical Fitting Collaboration with our Clinical Services Practitioners:

Clinical Consultation: *https://calendly.com/martin-bionics-clinical-services/consultation*

Clinical Fitting Collaboration: *https://calendly.com/martin-bionics-clinical-services/clinical-fitting*

Bikini Socket™ Video Training:

Watch the full video-based Bikini Socket™ training and fitting process by clicking on the video to the right, or by going to: https://vimeo.com/338267978/bbd6e8c143.

Hammock Casting Stand Adjustments and Casting: For complete step-by-step instructions, refer to the video above.

Adjust the Hammock Casting Stand™ to appropriately fit around the user. Carefully position the NASA-Based 2D Mesh Fabric within the Hammock Casting Stand to fully hammock-support the user, such that there is no distal weight bearing onto the stand itself. The goal is to mimic the full Bikini Socket™ fit using the NASA-Based 2D Mesh Fabric within the stand, such that the Hammock Casting Stand™ feels just like what the final Bikini Socket™ will feel like.

Only after the Hammock Casting Stand™ is fully adjusted and fit to the user, rub plaster over the outside of the NASA-Based 2D Mesh Fabric to solidify the contouring and fit, without having to shift the users' position within the Hammock Casting Stand™. Once the plaster is set, then have the user step out of the Hammock Casting Stand™ and leave the cast in place within the Hammock Casting Stand™ to pour with plaster to generate the positive model.

Check Socket Fabrication and Assembly: Once you've smoothed up the cast and made any desired modifications to the positive model, fabricate the check socket. Make sure that the check socket is sufficiently robust, and fabricated from non-brittle materials, since so much of the check socket material is removed with the micro-structure trim lines. Mount the Iliac Crest Stabilizers™ to the proximal ends of the anterior and posterior wings of check socket. Align the Bikini Socket™ using standard hip disarticulation alignment principles.

Finishing Out the Socket:

Attention to detail is very important, and the patient deserves it, so please ensure that the final fabrication and assembly has the quality workmanship you'd be proud to put your name on.

Final Lamination: The final fabrication can be completed within your own clinic or through Martin Bionics central fabrication services. The lamination layup should be robust enough at the hip joint mounting location and still allow very slight flexibility to the anterior and posterior wings. As a rule of thumb, the lamination layup will likely be similar to what would be used if you were making a conventional above knee socket for the same patient.

Smooth Cross Connectors: Swap out the multi-hole Cross Connectors with smooth Cross Connectors by drilling the corresponding holes in the smooth version at the same mounting positions and trimming them to length. Do not leave multi-hole Cross Connectors on the definitive socket, and do not leave

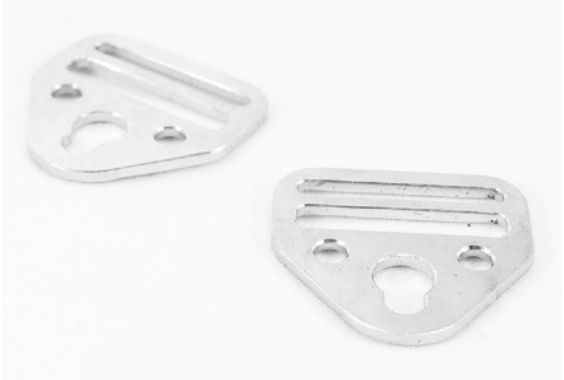
extra length of Cross Connector protruding past the Truss Nut attachment points, as this results in an un-cosmetic appearance and lacks attention to detail.

Truss Nuts: Do not use the Thumb Screws for final assembly, as they are only meant for check socket use within the clinic setting. Replace any Thumb Screws with the definitive Truss Nuts and Screws for out-of-clinic and definitive use. **Be sure to apply Loctite 242 to ALL Truss Nuts prior to delivery of the socket**, as the SwingBrim™ does not come with Loctite pre-applied. If the Truss Nuts are not Loctited, they will back out over time. If they are Loctited and sized appropriately, they should not back out.

The Truss Nuts are available in 1/16" increments, and it is very important to ensure that for any parts that need to swivel, including all Swivels, Cross Connector and Adjustors, that the Truss Nut length is 1/16" longer than the build height of the various sub-components that are being attached together. If the Truss Nuts are clamped where swivel movement is desired, the screw may back out over time.

Additional Suspension Options:

The Bikini Socket's™ Iliac Crest Stabilizers™ offer excellent capture over the Iliac Crests and provide sufficient suspension for most fittings. Their adjustability and conformity provides accommodation for limb volume changes and bony prominences, and should be ultra-comfortable for most patients.



However, some body types and shapes make it challenging to get purchase over the tops of the Iliac Crests, especially for hemipelvectomy fittings where the Iliac Crest is missing. When this occurs, Martin Bionics offers an alternative suspension option - the Fabric-to-Socket Buckles - to route the suspension forces 360° around the torso. Instead of traditional suspenders which cause isolated point specific loading over the tops of the shoulders, the Fabric-to-Socket Buckles enable a snug-fitting spandex or elastic t-shirt (such as

an UnderArmour t-shirt) to be the functional equivalent of suspenders but spreads the forces 360° *around* the torso instead of over the tops of the shoulders only. The elastic fabric of the tight fitting t-shirt is routed through the Fabric-to-Socket Buckles to clip the shirt to the socket, using included mushroom-shaped connectors.

Typically use an elastic t-shirt that is one size smaller than what the patient typically wears so that it fits very snug (but comfortable) around the body. The tighter the shirt, the better it will distribute the suspension forces *around* the torso, versus over the shoulders. When using the Fabric-to-Socket buckles, bilateral Iliac Crest Stabilizers™ are still used to provide lateral stability within the socket.

Bikini Socket™ Coding:

The Bikini Socket™ coding will be similar to the code set that is used with a conventional hip socket. See below for typical codes used for hip disarticulation and hemipelvectomy sockets.

Code(s)	Description
L5341 (Hemi) or 5331 (Hip Disartic)	Hemipelvectomy, Canadian Type, Molded Socket, Endoskeletal System (L5341) Hip Disarticulation, Canadian Type, Molded Socket, Endoskeletal System (L5331)
L5628 (Hemi) or L5626 (Hip Disartic)	Addition to Lower Extremity, Test Socket, Hip Disarticulation (L5626) or Hemipelvectomy (L5628)
L5950 (Hemi) or L5960 (Hip Disartic)	Addition, Endoskeletal System, Ultra-light Material (Titanium, Carbon Fiber, or Equal), Hip Disarticulation (L5960) or Hemipelvectomy (L5950)
L5631	Addition to Lower Extremity, Above Knee or Knee Disarticulation, Acrylic Socket
L5643	Addition to Lower Extremity, Hip Disarticulation, Flexible Inner Socket, External Frame
L5920	Addition, Endoskeletal System, Above Knee or Hip Disarticulation, Alignable System
L5694	Addition to Lower Extremity, Above Knee, Pelvic Control Belt, Padded and Lined
L5650	Addition to Lower Extremity, Total Contact
Suspension Codes	Pin/Lanyard, Suction, Vacuum, or others

Certification of Training and CEU Credits:

All practitioners fitting this Martin Bionics technology are required to confirm that they have completed this Martin Bionics socket training by clicking on the button below before fitting this technology.

Through completing this training you are eligible to receive CEU credits from the American Board for Certification. Click the button below, input your name and credential numbers, and we'll provide you with a quiz for CEU credits.

Click Here to Complete the Training and to Register to Fit the Bikini Socket™

Warranty and Credits

Thorough review and understanding of the Socket-less Socket™ training materials has a significant impact on the success of the socket fitting. The Martin Bionics' Clinical Services team will support your Socket-less Socket™ fittings to help maximize comfort and ensure that every fitting is as successful as possible. In the event there are challenges in the fitting process, our Clinical Services team can join you via a Zoom or FaceTime call, where we can typically help diagnose and resolve the issue with specific socket fitting suggestions.

If the socket is ultimately not the correct configuration for the end-user, we can re-configure the socket to another configuration to better match the user's clinical needs.

If even after the Clinical Services support the patient rejects the Socket-less Socket™, we will provide a credit toward fitting another patient, at the actual Socket Component invoiced price, less check socket, final fabrication, and shipping expense as applicable. All Socket-less Socket™ components will need to be returned within 30 days and the original invoice paid in order to issue the credit toward another fitting.

While we rarely find the need to repair or replace socket sub-components, the modularity of the Socket-less Socket™ allows it to be easily repaired. Martin Bionics will support replacement parts if premature wear and tear are found based on a flaw in Martin Bionics workmanship.

You can find the most recent and additional training resources at MartinBionics.com/Socket-Soft, as we update our training regularly.

If you have any questions during your socket fitting, contact our Clinical Services team at 844-MBIONIC, or schedule for our trained and experienced Clinical Services team to join you via phone or video-call for a Clinical Consultation or Clinical Fitting Collaboration using the links below.

Clinical Consultation: ***https://calendly.com/martin-bionics-clinical-services/consultation***

Clinical Fitting Collaboration: ***https://calendly.com/martin-bionics-clinical-services/clinical-fitting***