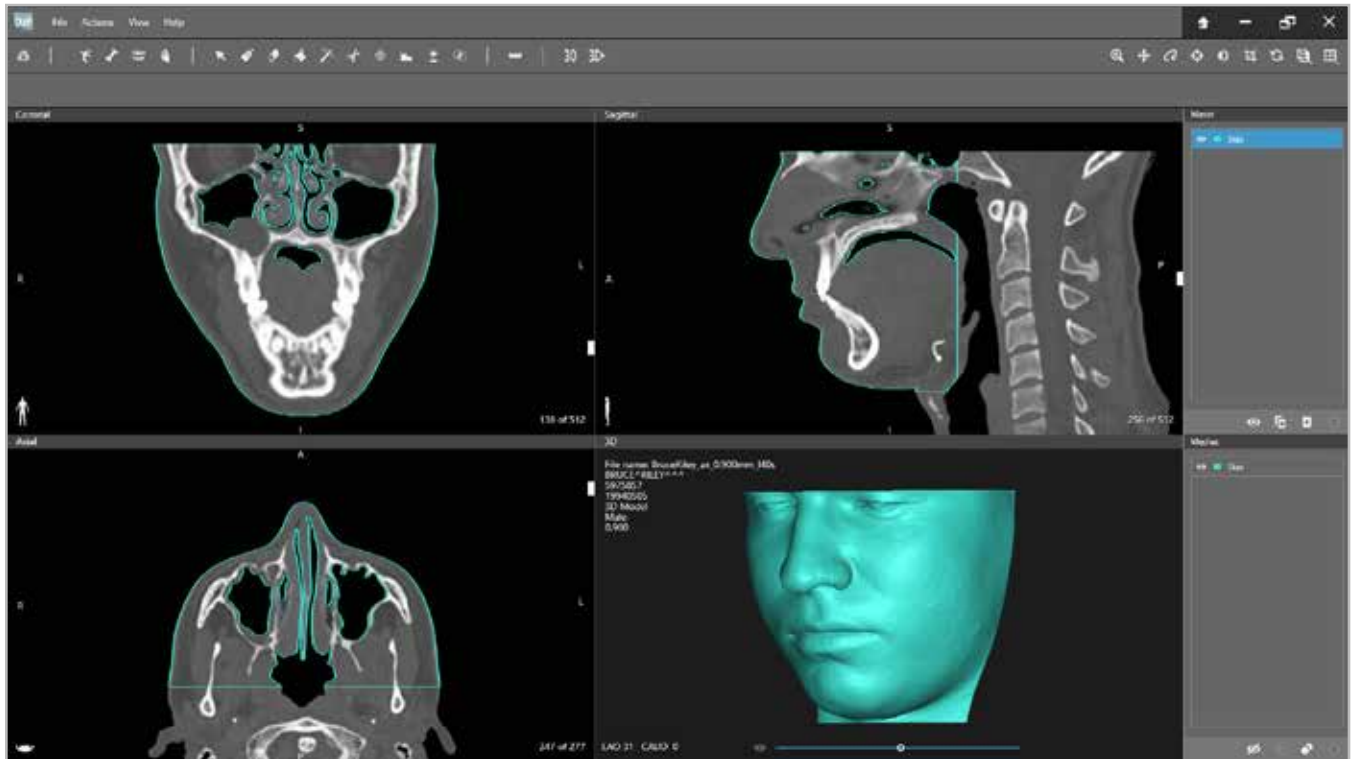


# VSP<sup>®</sup> Bolus

3D printed, patient-specific  
boluses made simple



Patient-specific boluses can improve therapy modulation and patient comfort. Until now, however, these solutions have required you to either purchase your own 3D printer and/or develop design expertise and software knowledge to offer these customized devices. VSP® Bolus is different. By including the complete workflow from design to delivery, we make bolus personalization easy.



Once we receive a patient's CT images (DICOM file) and treatment site identification, our FDA-cleared workflow begins. 3D Systems uses D2P® software to segment the imaging data and design a bolus to your specifications for your patient.

Once designed, we use professional-grade additive manufacturing processes from our certified medical device manufacturing facilities to produce a high-quality bolus.

Then, we quickly deliver a flexible, reusable bolus that conforms to your patient and provides them with a more comfortable experience.

## Optimize Radiotherapy Targeting with VSP® Bolus

3D Systems set out to develop a 3D printed bolus that contours to a wide range of anatomies. The result is an elastomeric, biocompatible, uniform-thickness, patient-specific bolus that controls radiation dose delivery depth.



## Achieve Personalization without the Hassle

- Improve patient comfort, fit, and pliability with our biocompatible Visijet® M2E-BK70 material
- Reduce potential air gaps for improved treatment, especially for complex anatomies
- Eliminate the need for barriers; the material can be applied directly to the skin
- Reuse the device throughout the course of treatment
- Wrap the bolus 360 degrees around patient anatomy, if needed, enabled by the elastomeric properties of the material



## Gain the Additive Advantage

When it comes to personalizing patient outcomes, 3D Systems can help you stay ahead of the curve. You can count on our 3D printing technologies and industry-leading expertise. In fact, since we began helping medical device manufacturers and healthcare providers integrate additive manufacturing 30 years ago, we have hit some impressive milestones.

**2M+**

Medical devices

**140K+**

Patient-matched cases  
& devices delivered

**100+**

FDA cleared & CE marked  
devices supported

# Start the Conversation.

Schedule a no-obligation consultation with one of our experts to find out how 3D Systems can help you deliver personalized outcomes and gain the additive advantage.



[CONTACT US](#)

[3dsystems.com/healthcare/medical-devices](https://3dsystems.com/healthcare/medical-devices)

**Indications for Use:** The 3D Systems VSP Bolus product is a device that will be placed on the skin of a patient as a radiotherapy accessory intended to help control the radiation dose received by the patient. VSP Bolus is generated using input from radiation therapy professionals and medical imaging data to produce a bolus that is specific to the patient being treated. The VSP Bolus product is verified and approved by the radiation therapy professional prior to use on the patient and is intended for patients of all ages receiving radiotherapy treatment. VSP Bolus was evaluated using 6 MV photons but has not been assessed for use with protons, electrons, or at orthovoltage X-rays.