



## Practice Makes Perfect

Even experienced surgeons sometimes wish they could have a trial run for an upcoming operation. Dinsmore and Associate's 3D printing service was able to offer Dr. Russell Petrie of Newport Orthopedic and Dr. Scott Williams, Chief Radiologist of Hoag Radiology department Hoag Hospital in Newport Beach this opportunity for a difficult shoulder surgery.

Doctors received X-ray data of a hole in a patient's shoulder blade where the challenge was to complete a successful bone graft to repair the hole, an unusual problem in a hard-to-access location.

The hospital sent the file to Dinsmore & Associates and in just mere hours, experts from the engineering and design department were able to turn it into an exact 3D model of the patient's shoulder blade— bringing to life what the surgical team would normally only be able to view on a computer screen. Stereolithography technology was used to create the replica, which ensured incredibly high detail, and the Somos® NeXt material provided a surface finish as close to actual bone while giving the surgeons the ability to drill into the test part.

After studying the model of the patient's shoulder blade, doctors were able to do a trial run of the complex surgery and be better prepared for the actual operation. "Dinsmore made the 3D model that allowed us to do a practice surgery and help our patient — and they got us the parts quickly," said Dr. Scott Williams, Chief Radiologist at Hoag Hospital.

When absolute precision, accuracy and safety is needed, the chance to examine the patient's bone before making a single incision is an incredible opportunity. It not only lessens both the actual surgery recovery time, but can also reduce the chance for infection by taking the guess work out of what they can't see. And yes, the surgery was successful.

