3 D Pre-Operative Imaging, Signature Knees and Robotics in Orthopaedics and Sports Medicine.

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The future of orthopaedics and sports medicine will be on the focus of techniques which enhance accuracy and efficiency, such as 3 dimensional pre-operative imaging and the use of robotics.

As my practice is based upon patient outcome, I feel that the additional precision of preoperatively evaluating the patient's anatomy in 3 D and integrating that information into the surgical plans, highly benefits the implant placement for the joint replacement.

With the use of MRI and/or CT scans, these individualized 3D images and models of the patients are utilized prior to and during surgery. These cutting edge techniques increase exact precision and consistent reproducibility for technically difficult procedures.

In addition, surgeons also use robots to pre-operatively plan and map the areas of diseased bone to be removed. During surgery, 3-D visualization and a robotic arm (www.MAKOplasty.com) provide visual, tactile, and auditory feedback so only diseased bone is resurfaced, sparing healthy bone stock and making a smaller incision to tissue.

Some of the benefits include a more "natural" feeling knee after surgery and most importantly a rapid relief from pain and shorter hospital stay. In many cases, patients are permitted to walk soon after surgery, drive a car within two weeks and return to normal daily activities shortly thereafter.

When people think of seeing an orthopaedic specialist, they immediately think of surgery. Fortunately, many orthopaedic and sports medicine problems can be corrected with conservative treatments such as physical therapy, injections, bracing, rest or activity modification. Only if these conservative treatments fail, would surgery be recommended.

At Gavin Orthopaedics, my goal is to successfully treat your injuries with the most current, proven procedures and minimize your time away from the sports and lifestyle you love.