



Dr Michael Sherfey

Robotics

Benton Franklin Orthopedic Associates



stryker

Let's talk Mako SmartRobotics™



Scan.
Plan.
Mako
Can.

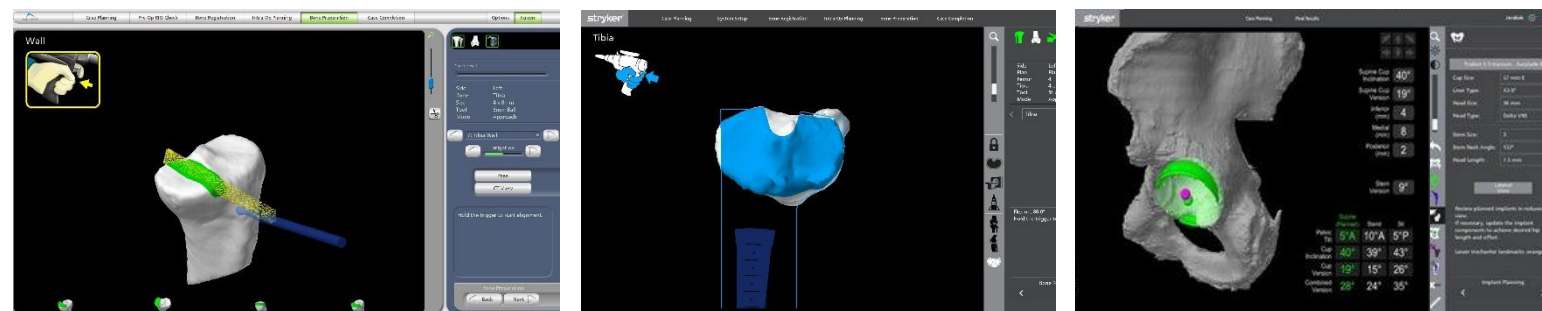
Mako SmartRobotics™

Mako SmartRobotics™ combines three key components, **3D CT-based planning**, **AccuStop™ haptic technology** and **insightful data analytics****, into one platform which has shown better outcomes for total hip, total knee and partial knee patients.^{2,9,18}

Know more.



Cut less.^{†4-8}



**Access to data analytics offering requires execution of a separate agreement.

The Mako advantage

Mako SmartRobotics™ is the only robotics system with 17 years of robotic-arm assisted surgery experience.

No other technologies in the market currently offer these comprehensive solutions.

	Mako
Launch date and indications	Partial Knee – 2006 Total Hip – 2010 Total Knee – 2016
Imaging	CT scan
Bone preparation guidance	Haptically guided cutting with robotic arm
Marketing claims	Enhanced pre-op planning Dynamic joint balancing Haptic guidance
Data analytics offering	Insightful Data Analytics* - Facility Reported Outcomes, RecoveryCOACH™

*Access to data analytics offering requires execution of a separate agreement.

Treatment options for various stages of knee pain

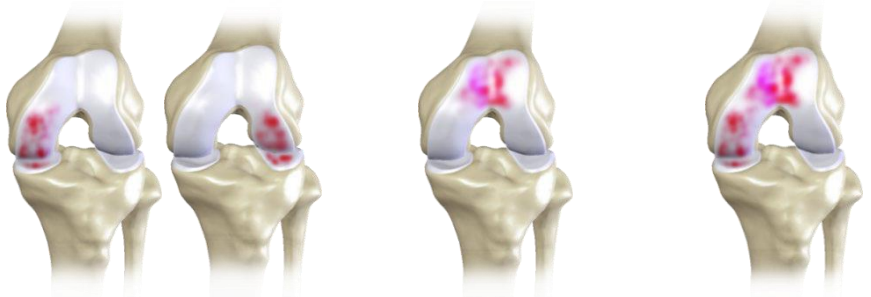
Early-stage

knee pain



Midstage

OA



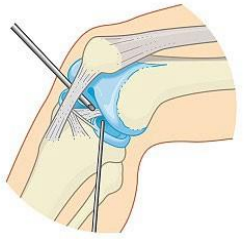
Late-stage

OA

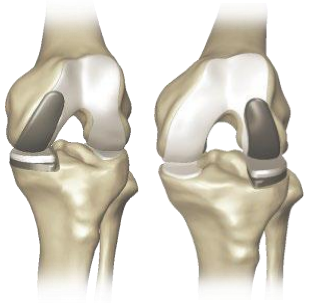


Treatment

Knee arthroscopy



Unicompartmental knee replacement



Medial Lateral

Patellofemoral knee replacement



Bicompartmental knee replacement



Medial

Total knee replacement



Clinical success | Total Knee

Mako Total Knee has demonstrated...

Two distinct, prospective, consecutive series, single-surgeon studies comparing patients who underwent conventional jig-based total knee replacement versus Mako Total Knee surgery (40 patients⁵ and 30 patients⁹ in each cohort) concluded that Mako Total Knee with Triathlon was associated with:

- ✓ **Less** bone and soft tissue damage⁹ ($p < 0.05$)
- ✓ **Less** need for manipulations under anesthesia and revisions⁵
- ✓ **Less** need for opiate analgesics⁵ ($p < 0.001$)
- ✓ **Less** time to hospital discharge⁵ (26% reduction in LOS)
- ✓ **Less** need for inpatient physical therapy sessions⁵ ($p < 0.001$)
- ✓ **Less** postoperative pain⁵ ($p < 0.001$)
- ✓ **Lower** cumulative revision rate out to 4 years⁴²



Economic outcomes | Total Knee

Mako Total Knee has demonstrated...

- ✓ **Reduced** pain and use of pain medications^{10,11,30}
- ✓ **Reduced** utilization and cost of health services such as skilled nursing, home health aide, readmissions and emergency room^{13,15,35}
- ✓ **Reduced** 90-day EOC costs for Medicare and private payer^{13,15,24,35,36}
- ✓ **Reduced** EOC costs for private payers at 12 months^{24,36}



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