

## Update in Orthopedics

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**V**ISIONAIRE Patient Matched Technology is a process that allows a prosthesis manufacturer to design and produce a set of nylon cutting blocks for the distal femoral and proximal tibial osteotomies in total knee arthroplasty.

VISIONAIRE acts this way:

- patient data obtained by MRI and full length X-Ray examination are processed using a special software.
- it's creating some 3-D model of the patient's bone anatomy.
- these cutting blocks are made in the U.S.A and delivered with the size, patient name, left or right knee and implant system clearly labeled.

- the cutting blocks are used intra-operative allowing a single stage osteotomy instead of many approximate measurements.

VISIONAIRE has the potential to improve clinical outcomes by improving operating efficiency:

- eliminating the need of an intra-medullary rod, decreasing the risk of fat embolism
- reducing the number of instruments used in the OR which means less costs and time
- decreasing the operating time which leads to less blood loss and anesthesia use
- earlier return to life's activities

This technology is truly the breakthrough that total knee replacement has been waiting for.

## REFERENCES

1. **Berend ME, Ritter MA, Meding JB, et al.** – Tibial Component Failure Mechanisms in Total Knee Arthroplasty.

*Clin Orthop Relat Res.* 2004; 428:26-34.  
2. **Novak Ej, Silverstein MD, Bozic KJ** – The Cost Effectiveness of Computer-

Assisted Navigation in Total Knee Arthroplasty. *J. Bone Joint Surg Am.* 2007; 89:2389-97.

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