Customized Patient Instruments for Total Knee Replacement
The TruMatch Solutions program from DePuy Orthopaedics brings a new level of personalized Total Knee Replacement surgery to your OR, allowing you to work with femoral and tibial cutting guides individually prepared to match the alignment criteria and actual bone surfaces of each patient. The design software takes into account your own surgical preferences. With TruMatch Solutions, you are able to provide a knee treatment designed around the individual needs of your patients.

Delivering customized patient instrumentation through advanced technology.

TruMatch™ Personalized Solutions is based on the proven philosophy of mechanical alignment.

Instruments that match the natural anatomy of your patient.

Individually shaped to fit securely to the bone.

Predetermined key surgical cuts - based on the patient's mechanical alignment.

Our rigorous approach to technological innovation means you can have confidence in offering a knee treatment that is right for you, and your patient.
**Efficiency**

Reduced surgical steps

Fewer standard instruments needed

Fewer instrument cases to resterilize

Facilitates faster OR turnover

**Function**

Elimination of up to nine steps from the surgical workflow

Eliminates the need, and assembly, of the femoral IM rod guide, sizing guide and the tibial resection guide

Based on the patient’s mechanical alignment

**Wear Resistance**

3D plan of the whole leg structure

Facilitates proper implant placement and alignment, a key factor in reducing polyethylene wear in total knee replacement

Determination of distal femoral and proximal tibial resection levels, varus/valgus alignment, femoral rotation and tibial slope
Upon your approval, DePuy will manufacture the customized instruments based upon the listed information supplied by you. DePuy warrants that the customized instruments to be manufactured or supplied pursuant to your request are merchantable, of good quality and free from defects, whether patent or latent, in materials or workmanship; and that the customized instruments sold hereunder conform to or exceed the higher grading standards recognized by DePuy’s industry. DePuy further warrants that it has good title to the customized instruments and that the customized instruments are free and clear from all liens and encumbrances.

Proposal Revision: 2

For example only
Your patient’s 3D anatomy data and your personal surgical preferences are used together to define the Patient Proposal.

DePuy Orthopaedics takes this information and then creates a Patient Proposal based on mechanical alignment.

The TruMatch Solutions website allows you to review, approve, change, re-design or cancel any Patient Proposal at any stage of the process.
With a three-dimensional plan of the whole leg structure, the TruMatch Solutions team of engineers will model resection guides to provide mechanical alignment through the new total knee. These will determine distal femoral and proximal tibial resection levels, varus/valgus alignment, femoral rotation and tibial slope.

Wear Resistance, a key factor in an implant’s long-term success is, in addition to implant design, strongly driven by correct implant alignment. Proper alignment is enabled by a combination of surgical skill and precise instrumentation.
The seamless TruMatch Solutions process

**Patient Imaging**
Following an assessment and recommendation from the surgeon, the TruMatch Solutions process begins with a CT scan of the whole leg, from hip to ankle, per a defined TruMatch Solutions scanning protocol. The CT scan will be conducted at a certified imaging center (local to the surgeon) and will then be electronically forwarded to our TruMatch Solutions team. The team will confirm the quality of the scan and create a new patient record for later submission by the surgeon’s office.

**Case Submission**
Through a simple web interface, the surgeon’s office finalizes the pertinent case information and submits the order to the TruMatch Solutions design team. Immediately, the system will provide the delivery date of the finalized blocks. Surgery can be scheduled any time thereafter, up to six months. The case information will be collated with the surgeon’s surgical preferences already recorded in the system. Together with the implant geometry, the TruMatch Solutions design team will prepare a customized patient proposal.

**Image Processing and Patient Proposal**
Utilizing proprietary software, the TruMatch Solutions design team will create a complete three dimensional model of the whole leg structure, which will be combined with the patient’s information and the surgeon’s surgical preferences to create a customized patient proposal. The patient proposal will include information such as distal femoral and proximal tibial resection levels, varus/valgus alignment, femoral rotation and tibial slope.
Patient Proposal Approval

An e-mail will alert the surgeon when the case specific patient proposal is ready for his/her comment and approval. The surgeon is then able to visit a password protected area of the TruMatch Solutions website to make, if necessary, any revisions and approve the proposal.

Instrument Preparation and Kit Consolidation

Once the surgeon approves the details of the proposal, preparation of the customized patient instruments takes place within our dedicated manufacturing center. Individual patient name and data are etched on each, to confirm identification in the OR. Stainless steel guides within the RenShape™ plastic blocks are designed to minimize particle generation during cutting.

Delivery and Surgery

The TruMatch Solutions resection guides are delivered sterile. The guides are delivered on, or prior to, the stated delivery date communicated during the case submission step. Surgery can take place any time thereafter up to six months.