



Simplifying the Most
Clinically Proven
Partial Knee in
the World

**Oxford® Partial Knee with
Microplasty® Instrumentation**



ZIMMER BIOMET
Your progress. Our promise.™

Microplasty Instrumentation

A blue-tinted line drawing of a surgical instrument, likely a microplasty tool. The drawing shows a complex assembly with a handle, a main body, and a specialized tip. The handle has several circular features and a rectangular slot. The main body is rectangular with a small rectangular opening. The tip is cylindrical and tapers to a point. The drawing is composed of clean, white lines on a solid blue background.

Innovative, Accurate, Reproducible

Microplasty instrumentation simplifies the surgical technique, providing more accurate and reproducible femoral and tibial implant positioning.¹

By referencing normal, intact cartilage and the MCL to set the amount of tibial resection, the technique is more bone-conserving compared to Phase 3 Instrumentation. Microplasty instrumentation has resulted in a greater number of 3 mm and 4 mm bearings being implanted (92% vs. 84%; $p=0.001$)¹ compared to Phase 3 Instrumentation, which has demonstrated better survivorship than 5 mm bearings and thicker.²

With simplified instrumentation, Microplasty showed a reduction in OR time of almost 9 minutes compared to Phase 3 Instrumentation.³

Oxford Microplasty instrumentation has also been shown to reduce the risk of dislocation compared to Phase 3 Instrumentation.⁴

Key Oxford Microplasty Instruments

Anti-Impingement Guide and Anterior Mill

By using the Anterior Mill in combination with the Anti-Impingement Guide it allows for precise removal of impinging osteophytes and anterior bone. This helps avoid impingement and is faster than the chisel method with Phase 3 instrumentation.



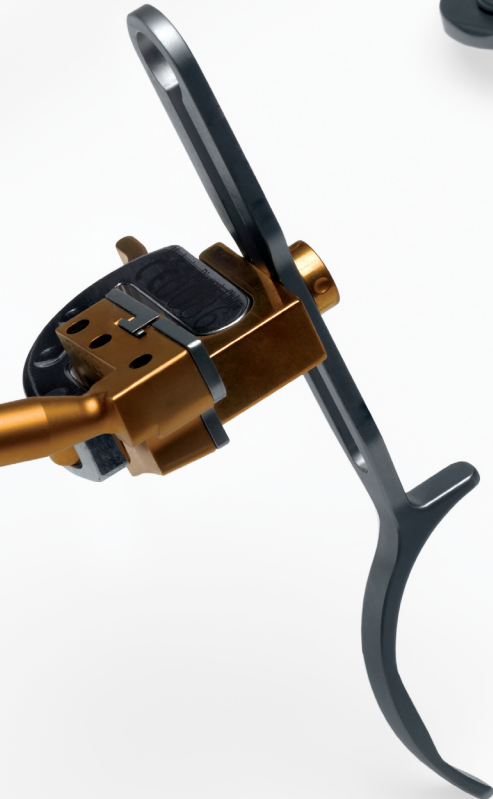
Femoral Drill Guide, IM Rod and IM Link

The Femoral Drill Guide linked to the IM rod provides accurate and reproducible femoral alignment¹



Posterior Resection Guide

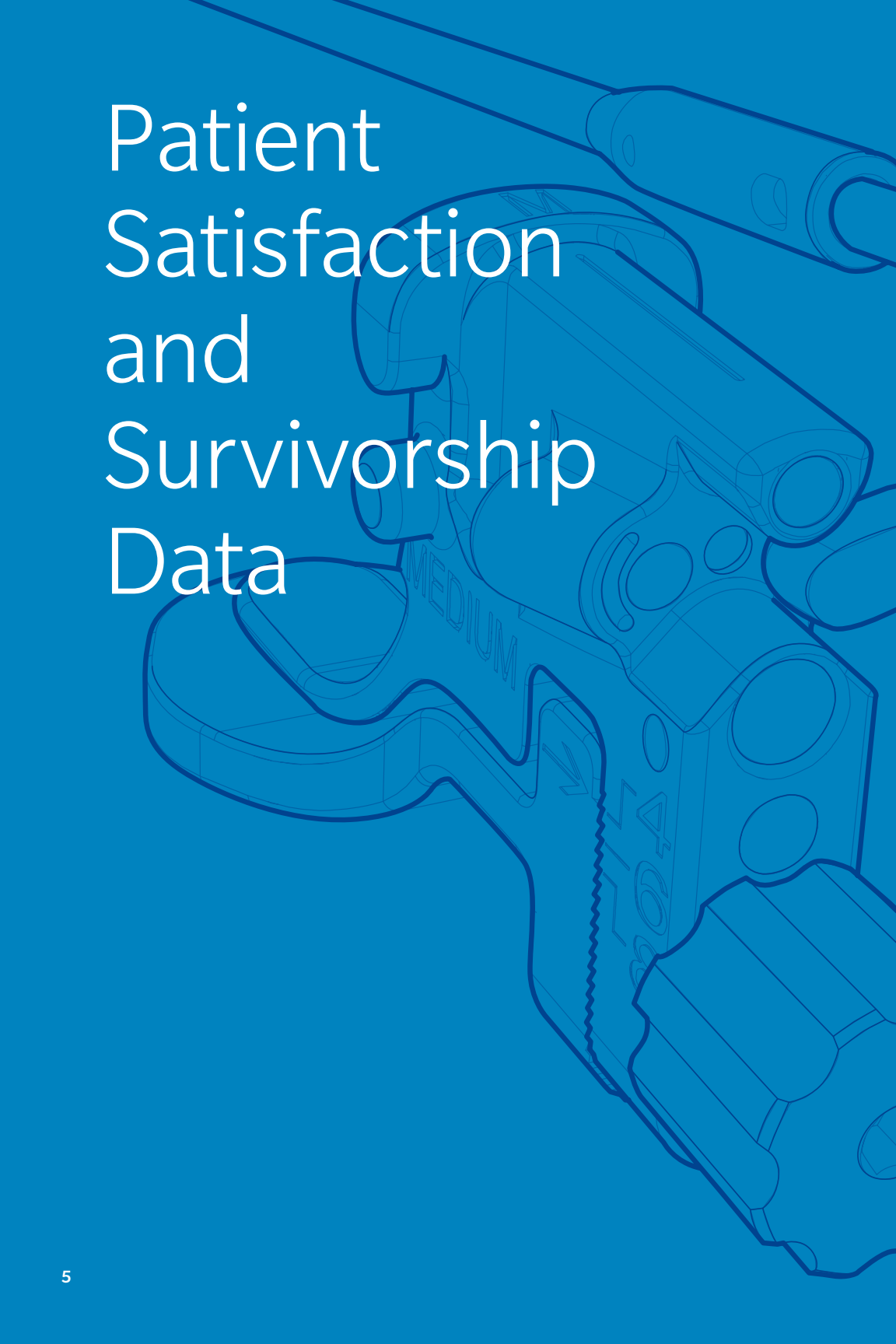
Updated Posterior Resection Guide features a captured cut slot, reducing the risk of over or under cutting the posterior femur



Tibia Resection Guide, G-Clamp and Femoral Sizing Spoon

Unique Tibial Resection Guide that uses patients' normal MCL tension to determine the level of tibial resection

Patient Satisfaction and Survivorship Data



Satisfaction

A recent multi-center study⁵ found Oxford Partial Knee Replacement (PKR) patients were...

- **2.7 times more likely to be satisfied** than Total Knee Replacement (TKR) patients with their ability to perform activities of daily living
- **1.8 times more likely to report** that their knee felt normal compared to TKR patients



Survivorship

Now compare this satisfaction data with data from the England and Wales National Joint Register (NJR) which showed 87.5% survivorship of PKA at 10 years compared with 96.6% in cemented TKA.⁶



**There's more to consider
than just survivorship
when deciding between
PKA and TKA.**

It is generally believed that the higher revision rate of PKR is due to a higher percentage of patients with poor results (OKS < 20). However a review of the New Zealand Joint Register by Goodfellow, J. *et al.*,⁷ shows that TKR actually has a higher proportion (1.6x) of patients with poor results than PKR.



Revision Threshold

An alternative explanation is that the threshold for revision is different for PKR and TKR. Data from the NZJR shows that if the outcome following TKR is very poor (OKS < 20) then 12% are revised whereas if the outcome following PKR is similarly poor then 63% are revised.⁷ This clearly shows that the threshold for revision of TKR is higher than for PKR.

Furthermore, PKRs have been proven to be easier to revise.⁷ Fortunately, there are ways to reduce the revision rate of PKR through utilisation⁸⁻¹⁰ and training & education.¹⁶

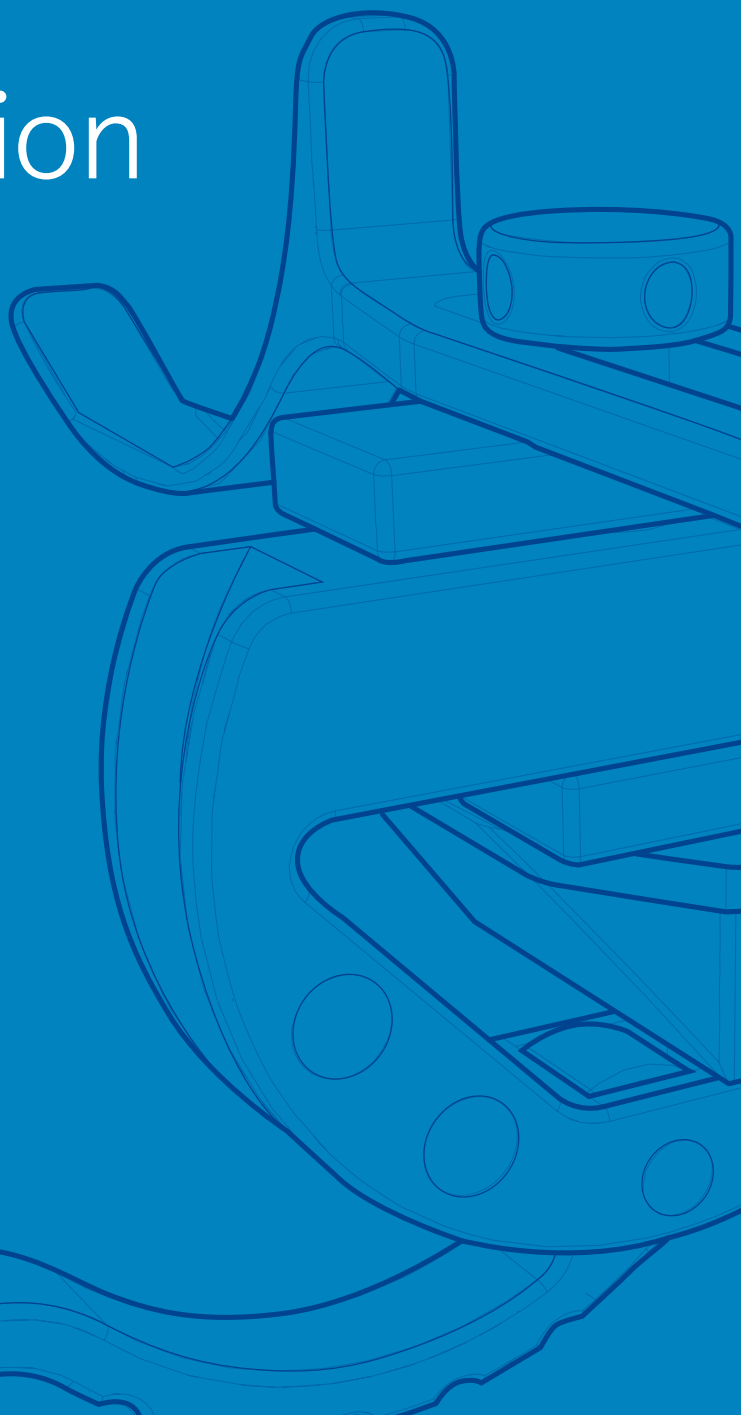
**If TKR had
a very poor
outcome,
then only**

12%
**are
revised**⁷

**If PKR had
a very poor
outcome,
then**

63%
**are
revised**⁷

Closing the Revision Gap



Utilisation

The revision gap between PKR and TKR reported in NJRs⁶ can be reduced with increased utilisation of PKRs.



Liddle, AD. *et al.*⁸ found that surgeons utilising PKR for **under 20%** of their annual knee replacements experienced a **dramatic increase in their revision rate**

A review of the NZJR by Treggonig *et al.* found surgeons implanting **at least 12 PKRs** per year are found to have a **decreased revision rate**⁹



Similarly a study by Badawy, M *et al.*¹⁰ found a **lower risk of revision** in hospitals performing **more than 40 PKAs per year** compared to those performing under 10 PKAs per year



PKA Candidacy

When using criteria published by Kozinn & Scott in 1989 only 5% of patients are candidates for PKA.¹¹ This may partly explain why there is low utilisation of PKA today, with it only being used for 8% of knee replacements worldwide.^{12,13}

In 2015, Scott¹⁴ revisited the 1989 criteria. Using published data, he and 5 co-authors concluded that the indications allow for a much broader utilisation.

Additionally, one study showed that 47.6% of all knee replacement patients are candidates for PKA.¹⁵

Training & Education

Training and education can make a huge impact in reducing revision rates. The Swedish Knee Arthroplasty Register (SKAR) found that “increased training of surgeons [on the Oxford PKR] showed improved results.”¹⁶

Zimmer Biomet makes it easy for you to become an Oxford PKR Trained Surgeon, through our ongoing lifetime education program.



Oxford Partial Knee Advanced Instructional Courses

This course provides the opportunity to learn more about the indications for the Oxford PKR and to practice the surgical technique, featuring Microplasty instrumentation.



Oxford Partial Knee Master Courses

For more experienced users of the Oxford PKR, classes are available locally throughout the year. For upcoming courses visit biometosa.com



Oxford Partial Knee Centres of Excellence

View live surgeries in a hospital setting and discuss implant design rationale.



Touch Surgery Application

To help surgeons stay current with the Oxford Partial Knee surgical technique, Zimmer Biomet has partnered with Touch Surgery to create an interactive surgical technique simulator featuring the Oxford Microplasty Instrumentation. The app is available on iOS and Android.



Download on the
App Store



GET IT ON
Google Play



The Oxford Partial Knee: Clinically Proven

The Oxford
PKR has over
35 years
of clinical
experience
and is the only
partial knee
that's been
clinically proven
in survivorship
at minimum 15¹⁷⁻¹⁹
and 20 years.¹⁷



Benefits of PKA vs. TKA*

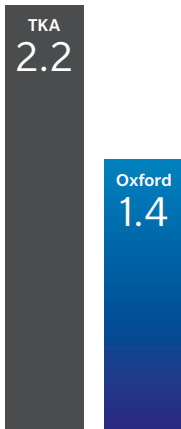
Better range of motion

compared to TKA^{20,21}

Better functionality

than TKA²²

Substantial cost savings of approximately \$3,261 per knee¹⁵



Shorter hospital stays²⁰

average length of stay in days

Fewer and less severe complications^{23*}

At least 0.8 days

average reduction in length of stay in favor of PKA^{1,20,23-28}

Additional cost savings

when associated with an accelerated recovery protocol²⁰



Oxford® Cementless Partial Knee

The Oxford Partial Knee is available with PPS® (Porous Plasma Spray) and HA (Hydroxyapatite) coating for cementless fixation. In a multicenter study of 1,000 knees, the cementless Oxford Partial Knee has demonstrated a 97.2% survivorship at 6 years.²⁹

Eliminating cement:

- Reduces cost, as cement and cement accessories are not needed
- Saves time, Pandit, *et al.* showed a 9 minute reduction in operating time compared to the cemented Oxford PKR³⁰
- Results in a reduction of radiolucent lines compared to the cemented Oxford PKR³¹
- May eliminate cementing errors that may cause pain due to medial overhang, tight flexion gap and impingement

References

* Some studies included Oxford Partial Knees as well as other 'non-Biomet' partial knees

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