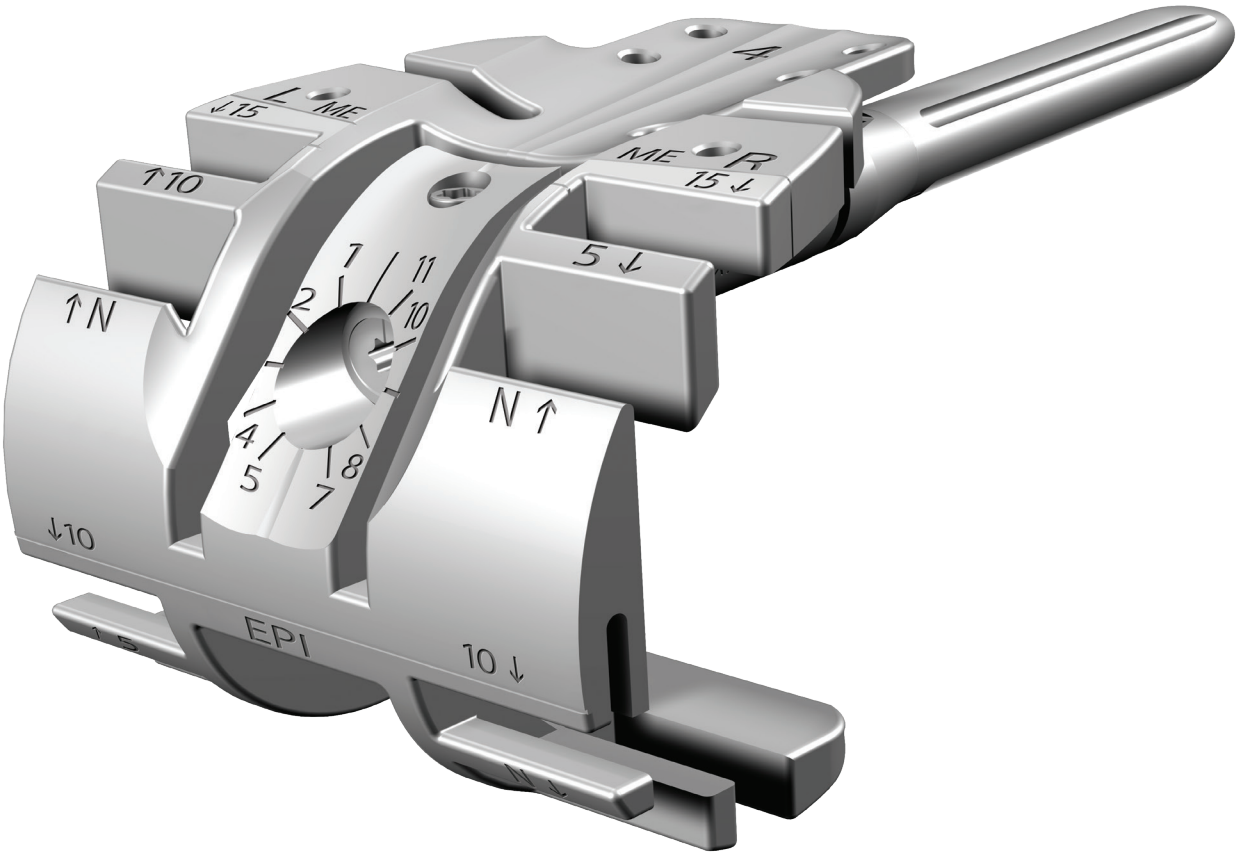
stryker

Triathlon®

Trial Cutting Guide (TCG)

Design rationale



Triathlon Trial Cutting Guide

Component positioning. Simplified.

The Triathlon Trial Cutting Guide (TCG) is designed to simplify femoral bone preparation for a Triathlon Revision knee.[1]

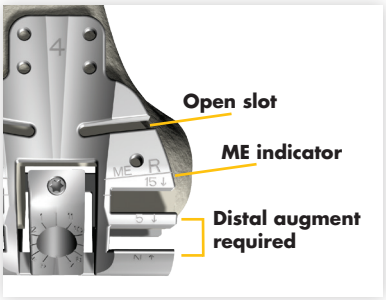
The positioning of the femoral component may impact the functional outcomes in primary and revision knee arthroplasty.[2-11]

With the TCG, a surgeon may fine-tune the joint line, gap balancing and femoral rotation—all before committing to any bone cuts.[1]

After trial reduction and evaluation through the range of motion, all cuts may be performed and stability can be evaluated with Triathlon PS or TS trials.

Joint line. Where you want it.

Accurate location of the joint line is critical in TKA.[6,7] Simply align the **medial epicondyle** with the ME scribe mark on the medial side of the TCG and pin through the open slot. This allows all bone cuts to be referenced from the ME, which may assist in accurately and reproducibly relocating the joint line.[7] Use the cutting slots as a reference to prepare for distal augments, which have been shown to enhance the ability to restore the joint line.[8]

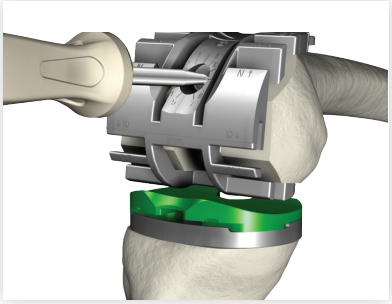


Femoral rotation. Dialed in.

Femoral component rotation impacts patella tracking, and malrotation may result in pain[9] and complications.[10] Evaluate rotation by performing a trial reduction with the TCG **before committing** to any cuts. Use EPI indicators in extension and flexion to confirm alignment. **Visualize** and perform augment cuts through the instrument; the use of posterior augments may improve accuracy of femoral rotation.[11]

Gap balancing. Dynamic.

Instability is a leading cause of revisions.[12] Restore flexion and extension gaps with **dynamic offsetting**, which may enhance stability and range of motion in revision TKA.[13] Offset the component before making augment cuts to posteriorize the component as necessary. **Restoring posterior condylar offset** has been shown to improve flexion stability and be an independent predictor of positive outcomes.[14]

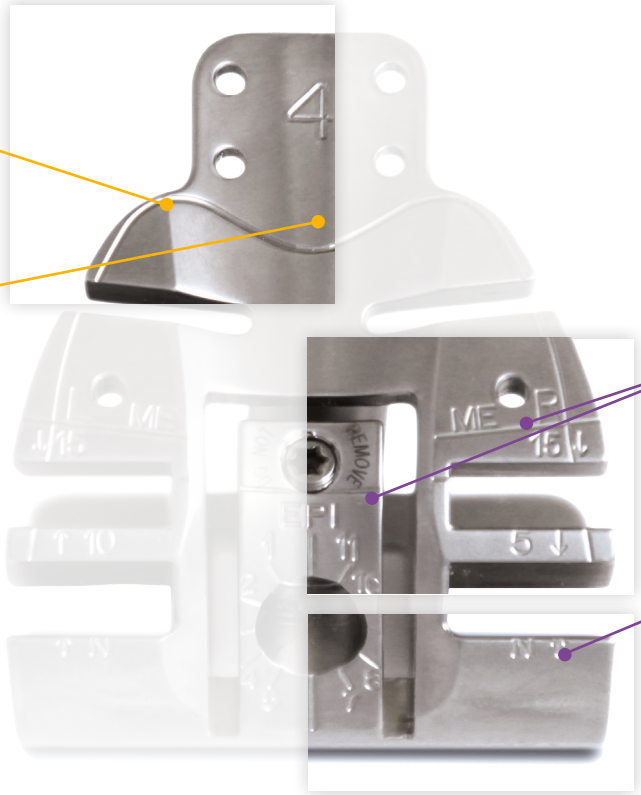


Anatomic component placement

With the Triathlon TCG:

Component positioning
Anterior runout allows you to visualize the final implant positioning

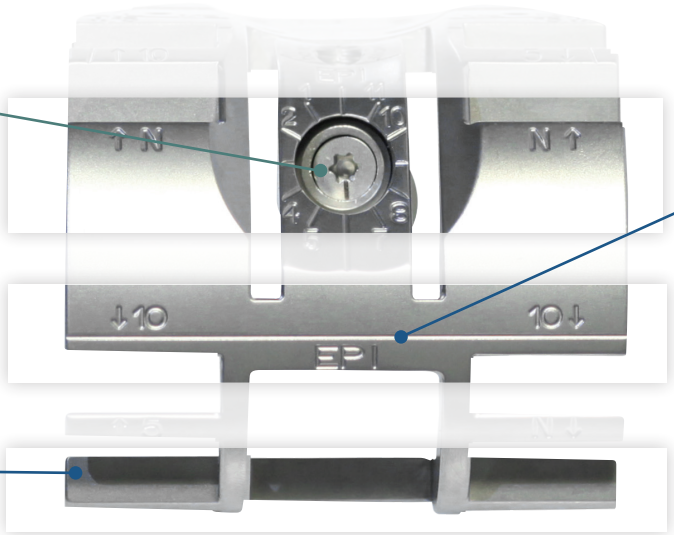
Component positioning
Evaluate patella tracking by referencing the runout of the trochlear groove



Joint line
Locate the joint line 28 mm from the ME by referencing the scribe mark

Joint line
Identify augments needed to restore the joint line, posterior condylar offset and femoral rotation

Gap balancing
Dynamically offset the component to establish flexion gap



Femoral rotation
Locate the ME and transepicondylar axis

Femoral rotation
Identify augments needed to restore rotation/PCO

Revision. Simplified.

With the TCG, all femoral bone preparation is performed with one instrument. Specially designed TCG trial inserts provide the ability to assess positioning and stability without insert constraint. Trial femoral components and trial PS or TS inserts can then be used to assess final placement and constraint.[1]

In the presence of metaphyseal bone loss, Triathlon Cones are designed to provide a platform for metaphyseal fixation while maintaining desired alignment of the revision components.[15]

The Triathlon Cones reaming prep is designed to be simple and quick and allows for an intimate, line-to-line fit and accurate cone positioning.[15-19] Because bone is machined to match the cone, the Triathlon Cones have demonstrated minimized micromotion compared to traditional cones.[20]

Reduced cone cross sections permit use of larger diameter stems and freedom in regards to implant placement.[15]

Revision knees are challenging. From femur prep and bone loss management to PS and TS constraint options, we help simplify your revisions.

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