

# Joint Preservation with *KineMatch*<sup>®</sup> Patient-Matched Patellofemoral Replacement (PFR)

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## **44 year old female with bilateral custom KineMatch PFR for progressive knee pain**

Right Knee KineMatch PFR (DOS: May 2014)

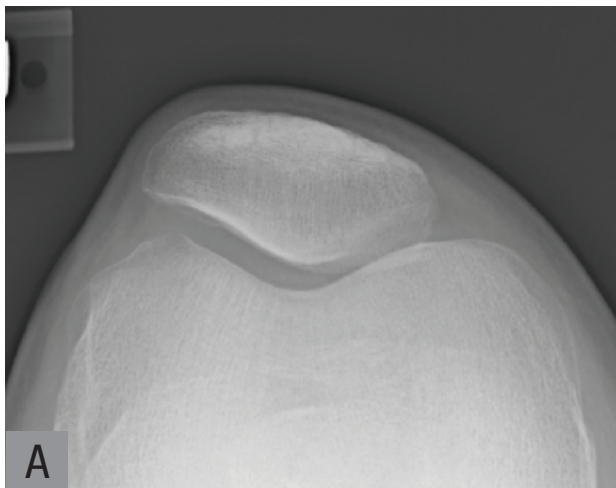
An active, previously athletic 44 year old female with longstanding progressive right anterior knee pain was seen in December 2013. Clinical and radiographic studies showed moderately advanced osteoarthritis isolated to the patellofemoral joint. Conservative treatment measures (previous arthroscopic chondroplasty, NSAIDS, cortisone and visco-supplementation injections, physical therapy, activity modification) had been exhausted and a CT-based KineMatch PFR was offered.

A computed tomography (CT) scan was performed to the Kinamed protocol, and the image data was sent to the company for manufacture of the patient-matched femoral trochlear component and matching drill guide.

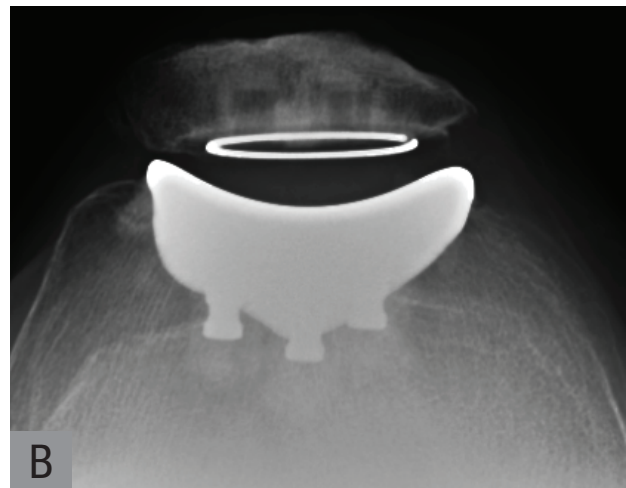
The outpatient surgery revealed grade 3-4 degenerative cartilage changes throughout the patellofemoral compartment and normal findings within the tibiofemoral compartments. The implanted KineMatch trochlear component had a perfect fit with the underlying subchondral bone. The patella was resurfaced with a standard patellar button. Intra-op testing of range of motion and patella tracking was normal.

She followed a standard post-op 12 week rehab program, with emphasis on restoring full active motion and quadriceps function. At her one year visit she had minimal symptoms, no activity limitations, full active and passive ROM and normal appearing X-rays.

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**Figure A:** Pre-Op Right Knee



**Figure B:** Post-Op Right Knee

(continued on back)

## Joint Preservation with *KineMatch* Patient-Matched PFR

### Left Knee KineMatch PFR (DOS: October 2015)

In May 2015 this same patient complained of worsening symptoms in her left knee, similar to what she had experienced on the right side. Clinical and radiographic findings showed isolated PF joint OA. Conservative treatment measures failed to restore her desired quality of life, and she therefore opted for KineMatch PFR.

This outpatient surgery was in October 2015, with expected findings and routine procedure. The custom KineMatch trochlear drill guide and component had a perfect fit to the subchondral bone. Post-implantation knee motion and patella tracking was normal. The patella was resurfaced with a standard patellar button. Initial recovery and rehab were uneventful.

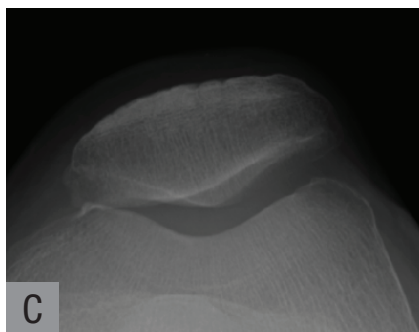
With increasing physical activity around 7 months post-operatively she developed patellar tendonitis causing temporary setback. This improved with time and additional rehab. At her 1 year post op visit she was quite pleased with her recovery status and activity level.

At the time of a phone interview 4.5 years after her right knee KineMatch PFR (3 years for the left knee) she expressed overall satisfaction with both knees; no pain in the right, mild activity related pain (rated 2-3 on a scale of 10) in her left.

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In my experience the KineMatch PFR has been an excellent option for younger (<55 year old) patients with end-stage OA isolated to the PF joint. We have used the KineMatch system with success on more than 60 patients in our practice since 2007. With proper patient selection this has been a reliable and powerful tool to restore quality of life, even in individuals with very active lifestyles.

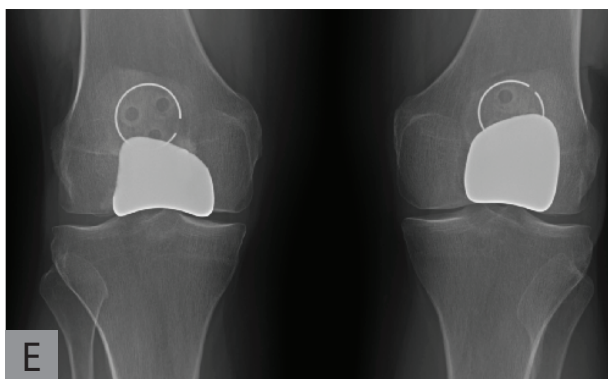
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**Figure C:** Pre-Op Left Knee



**Figure D:** Post-Op Left Knee



**Figure E:** Right and Left Post-Op

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