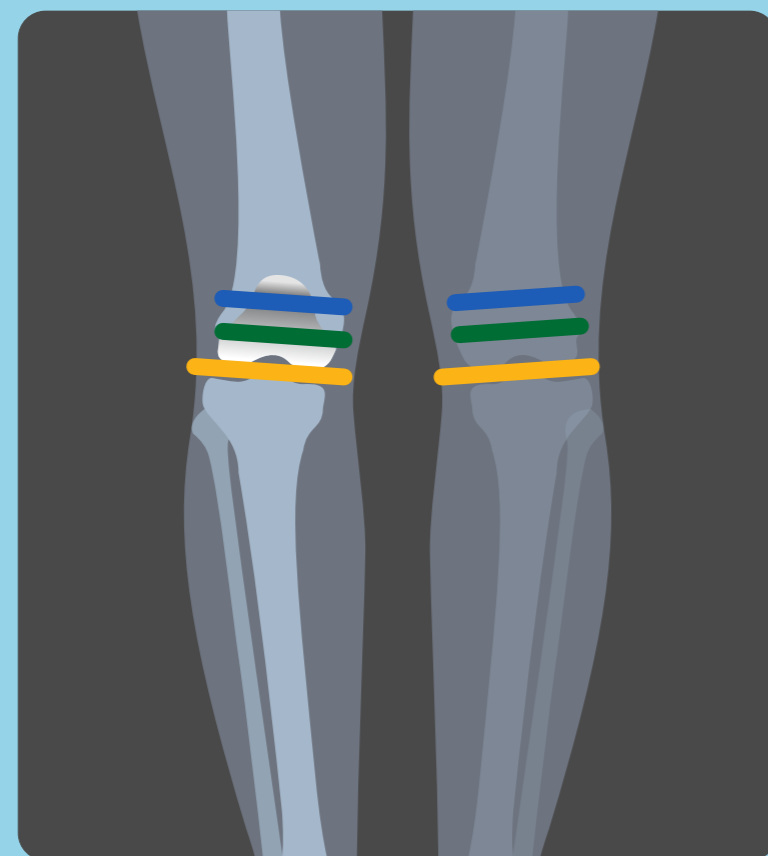


# Pre-Arthritic/Kinematic Alignment in Unicompartmental Knee Arthroplasty Restores Activity

In patients undergoing unicompartmental knee arthroplasty (UKA), could pre-arthritic/kinematic alignment help restore long-term function?

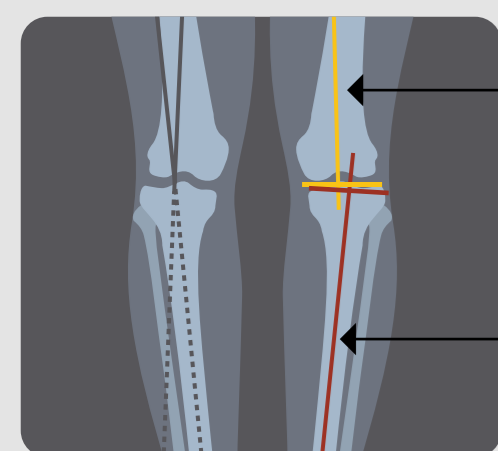


150 patients who underwent UKA during 2000–2015

n = 127  
with pre-arthritic/kinematic alignment

n = 23  
with non-pre-arthritic/kinematic alignment




Mean follow-up of 10 years



Pre-arthritic/kinematic alignment estimated using arithmetic hip-knee-ankle angle (aHKA = MPTA - LDFA)

MPTA: medial proximal tibial angle | LDFA: lateral distal femoral angle

## Outcomes after 10 years

Outcome measures	Pre-arthritic/kinematic alignment	Non-pre-arthritic/kinematic alignment	p-value
 Mean survival time (years)	18.6 (95% CI, 18.2–19)	15.4 (95% CI, 13.4–17.5)	$p = 0.008$
 KOOA Activities of Daily Living	92	74	$p < 0.001$
	KOOA Sport	74	36
 Proportion of knees achieving PASS for KOOA Activities of Daily Living	85%	28%	$p < 0.01$
	Proportion of knees achieving PASS for KOOA Sport	87%	57%

KOOA: Knee Injury and Osteoarthritis Outcome Score | PASS: patient acceptable symptom state

**Restoration of pre-arthritic/kinematic alignment of knees yields significantly better functional outcomes and return to activities than non-pre-arthritic/kinematic alignment at an average of 10 years after UKA**

Pre-Arthritic/Kinematic Alignment in Fixed-Bearing Medial Unicompartmental Knee Arthroplasty Results in Return to Activity at Mean 10-Year Follow-up

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