# Supplementary data

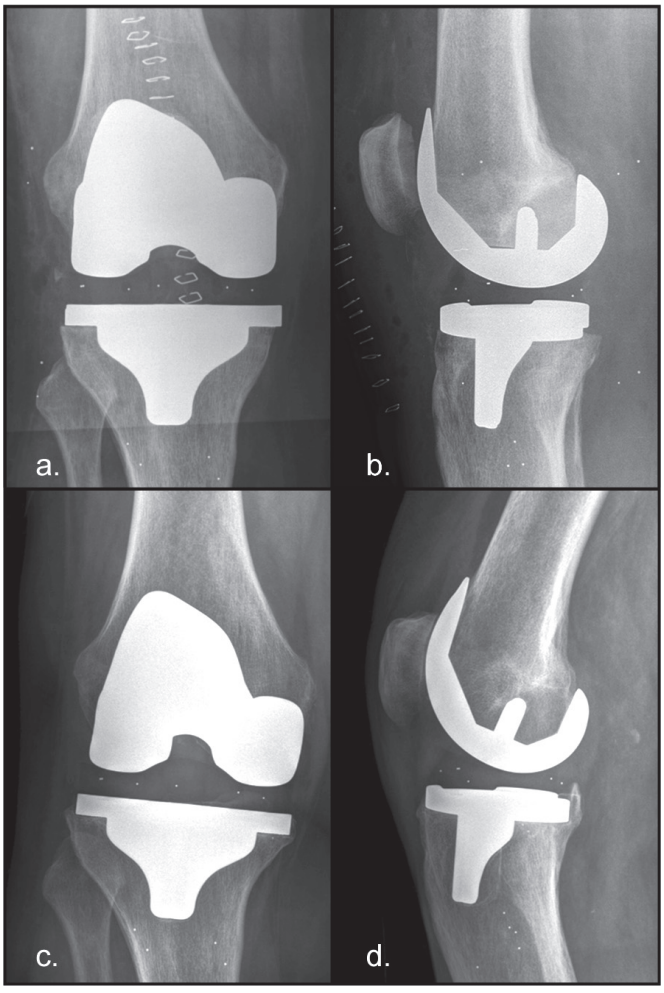


Figure 3. Uncoated TKA in a 65-year-old female (BMI 30) with a preoperatively valgus aligned knee (HKA 186°; postoperative HKA 175°). a, b directly postoperative, c, d at 10-year follow-up. The tibial component was initially classified as loose and did not stabilize between 2 and 10 years: note the posterior tilt of 9° (with a radiolucent line posterior to the tibial keel and posterior subsidence of the tibial plateau in d) and varus tilt of 6° (with medial subsidence of the tibial plateau in c).

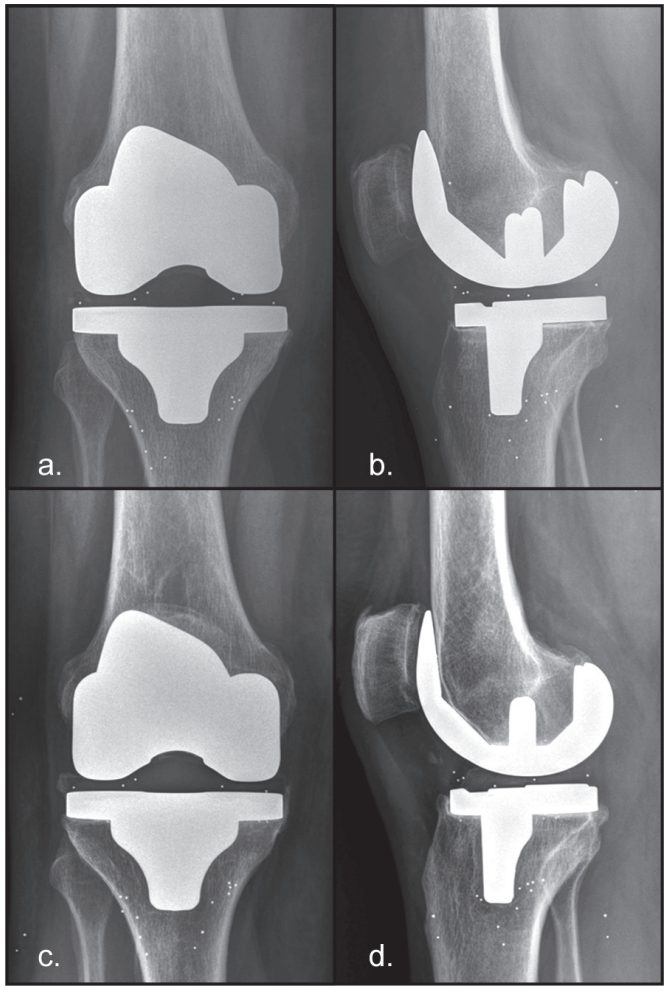


Figure 4. Uncoated TKA in a 56-year-old female (BMI 26) with a preoperatively varus aligned knee (HKA 169°; postoperative HKA 176°). a, b at 3-month follow-up, c, d at 7-year follow-up. The tibial component was initially classified as loose and did not stabilize between 2 and 7 years: note the anterior tilt of 5° (with a radiolucent line anterior to the tibial keel and anterior subsidence of the tibial plateau in d) and varus tilt of 2° (with medial subsidence of the tibial plateau in c).

**Table 3. Post hoc analysis of between-group mean difference in logMTPM with different time points as baseline: values are mean (standard error) unless otherwise specified**

| Baseline | LogMTPM | | Between-group difference | |
|---|---|---|---|---|
| | Uncoated | PA-coated | mean (95% CI) | p-value |
| Postoperative–10 years | 0.44 (0.04) | 0.29 (0.03) | 0.15 (0.08 to 0.22) | < 0.001 |
| 3 months–10 years | 0.12 (0.02) | 0.02 (0.02) | 0.09 (0.04 to 0.14) | < 0.001 |
| 1 year–10 years | 0.03 (0.01) | 0.00 (0.01) | 0.03 (–0.00 to 0.05) | 0.1 |
| 2 years–10 years | 0.01 (0.01) | 0.00 (0.01) | 0.01 (–0.02 to 0.03) | 0.7 |

**Table 4. Clinical scores in degrees or points (95% CI)**

| | Preoperatively | | 5 years | | 10 years | | |
|---|---|---|---|---|---|---|---|
| | Uncoated | PA-coated | Uncoated | PA-coated | Uncoated | PA-coated | p-value [a] |
| Knee function (°): | | | | | | | |
| Flexion | 113 (108–118) | 118 (112–123) | 121 (117–125) | 126 (122–130) | 123 (120–126) | 127 (124–131) | 0.9 |
| Extension [b] | –4 (–5 to –2) | –4 (–6 to –3) | –0 (–1 to 1) | 0 (–0 to 1) | 0 (0 to 0) | 0 (0 to 0) | 0.5 |
| Knee Society Score (KSS points): | | | | | | | |
| Knee Score | 40 (35–44) | 38 (34–43) | 97 (92–100) | 99 (96–100) | 94 (86–100) | 97 (94–100) | 0.3 |
| Function Score | 57 (52–61) | 53 (48–58) | 88 (81–96) | 89 (81–96) | 84 (76–91) | 86 (78–94) | 0.2 |
| Knee injury and Osteoarthritis Outcome Score (KOOS points): | | | | | | | |
| Symptoms | 46 (39–54) | 48 (41–55) | 91 (85–96) | 90 (85–95) | 91 (85–96) | 90 (85–95) | 0.6 |
| Pain | 41 (34–48) | 41 (34–48) | 89 (83–96) | 89 (83–96) | 91 (86–96) | 90 (85–95) | 0.7 |
| ADL | 44 (36–51) | 47 (40–54) | 85 (77–93) | 87 (80–95) | 87 (80–93) | 86 (80–93) | 0.7 |
| Sports | 12 (7–17) | 9 (5–14) | 45 (33–58) | 33 (21–45) | 49 (35–63) | 54 (39–69) | 0.6 |
| Quality of life | 23 (18–28) | 23 (18–28) | 83 (75–92) | 84 (75–91) | 82 (74–89) | 75 (67–83) | 0.02 |

[a] p-values stated in this column indicate testing the between-group mean differences of improvement with time over the entire postoperative follow-up period. Note that not all follow-up measurements are stated, but results from all follow-up measurements were used in the linear mixed-effects model to test for differences.
[b] Negative extension means no full extension possible.

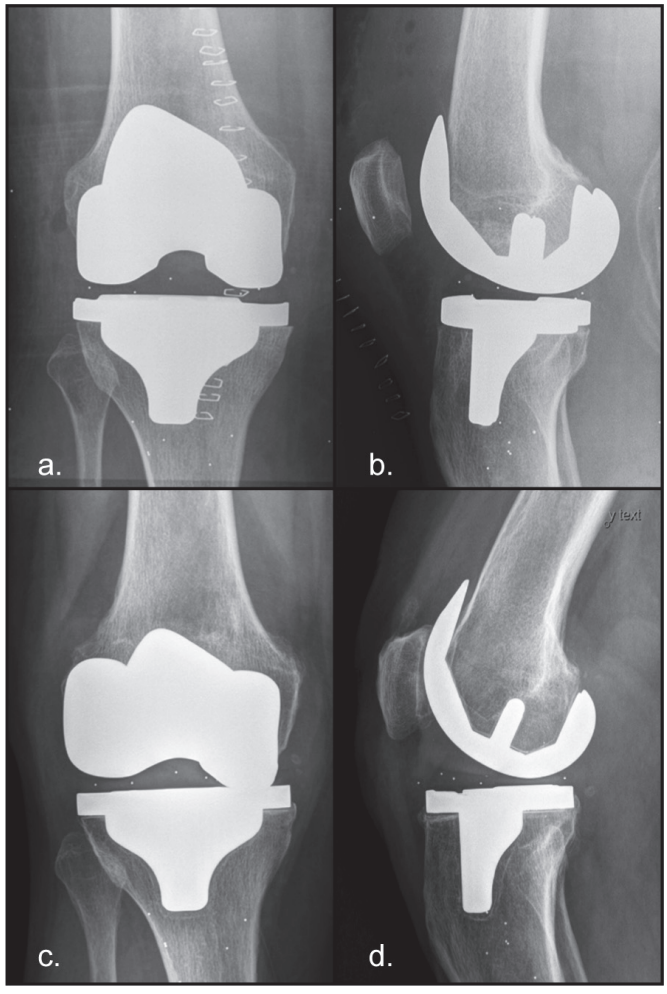


Figure 5. Uncoated TKA in a 60-year-old female (BMI 23) with a preoperatively varus aligned knee (HKA 176°; postoperative HKA 179°). a, b directly postoperative, c, d at 10-year follow-up prior to revision surgery. The tibial component was not classified as loose, which might be due to a different failure mechanism of insert wear, instability, and subsequent loosening. RSA measurements were stable up to 5 years, the measurements at 7- and 10-year follow-up were unreliable (as 2 insert markers were over-projected by the femoral component causing high condition numbers). Note the radiolucent lines around the tibial keel (in both c and d) and anteriorly (in d). A possible defect of the insert was confirmed intraoperatively on the posteromedial side. Contrarily to the well-fixed femoral component, the tibial component was easily extracted.