

Informed Consent for HRA

Dr. Gross has now performed over 5800 Hip Resurfacing Arthroplasty (HRA) procedures over the last 18 years. Most failures occur during the first two years after surgery, which is why it is of the utmost importance to follow your surgeons postoperative care instructions. However, there remains a slow rate of failure that occurs over time. Therefore, the overall failure rate increases for a group of patients as the length of follow-up increases. Herein, we report implant survivorship, for all three of our HRA implant groups (we no longer use Corin or Biomet hybrid HRA; we exclusively use Biomet uncemented HRA). Not all complications lead to failure. Below is a complete list of ALL major complications (not just failures/causes for revision) in the first 4700 HRA cases using the Biomet uncemented system:

A. FAILURES REQUIRING REVISION (1-12 YEAR FOLLOW-UP)

1. Femoral neck fracture	12
2. Failure of acetabular ingrowth	8
3. Adverse-wear related failure	3
4. Femoral head collapse (osteonecrosis)	3
5. Late acetabular loosening	2
6. Cup Shift	2
7. Unknown cause (revised elsewhere)	2
8. Intertrochanteric femoral fracture	2
9. Subluxation	2
10. Unexplained pain	1
11. Femoral head fracture	1
12. Subtrochanteric femoral fracture	1
13. Impingement	1
14. Recurrent dislocation	1
15. Deep infection	0
TOTAL:	41 /4700 (0.9% of total cases)

B. COMPLICATIONS REQUIRING REOPERATION*

1. Traumatic intertrochanteric fracture (5-11 months postop)	9
2. Deep infection (cured)	3
3. Hematoma	3
4. Superficial infection (cured)	2
5. Fascia failure	2
6. Frostbite from ice machine	2
7. Suture reaction	1
8. Dislocation	1
9. Abductor Tear	1
TOTAL:	24/4700 (0.5% of total cases)

*Implants are not removed during reoperation.

C. OTHER COMPLICATIONS*

1. Acetabular component shift (nonsymptomatic)	27
2. Cardiovascular complication	14
3. Dislocation	13
4. Hematoma	6
5. Spinal headache	6
6. Urinary complication	6
7. Other	4
8. Fracture	5
9. Peroneal nerve palsy	4
10. GI bleed	2
11. Femoral component shift	2
12. Loose femoral component	2
13. Infection	1
14. Femoral notching	0
15. Death due to surgery	0

***No reoperation or revision required.**

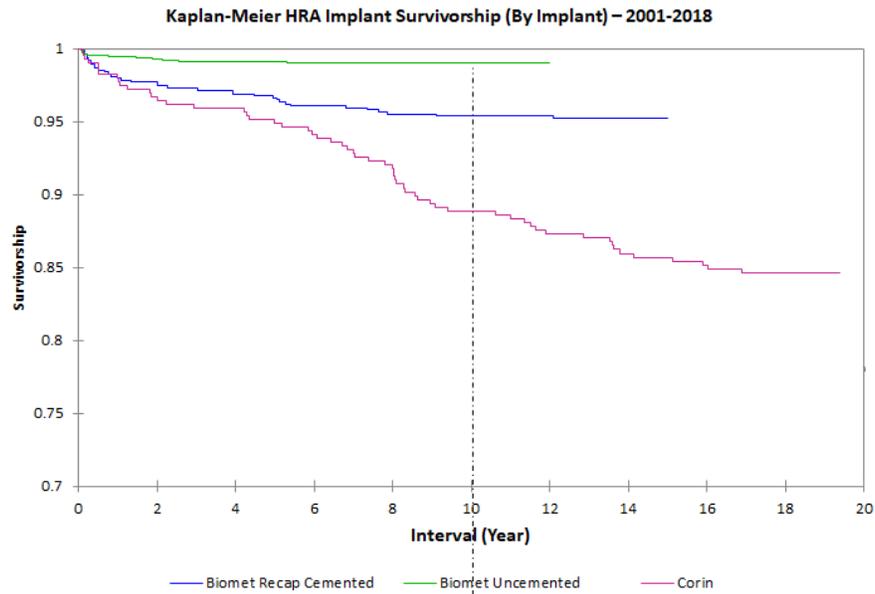
TOTAL: 92/4700 (2.0% of total cases)

D. RESURFACING SURVIVORSHIP

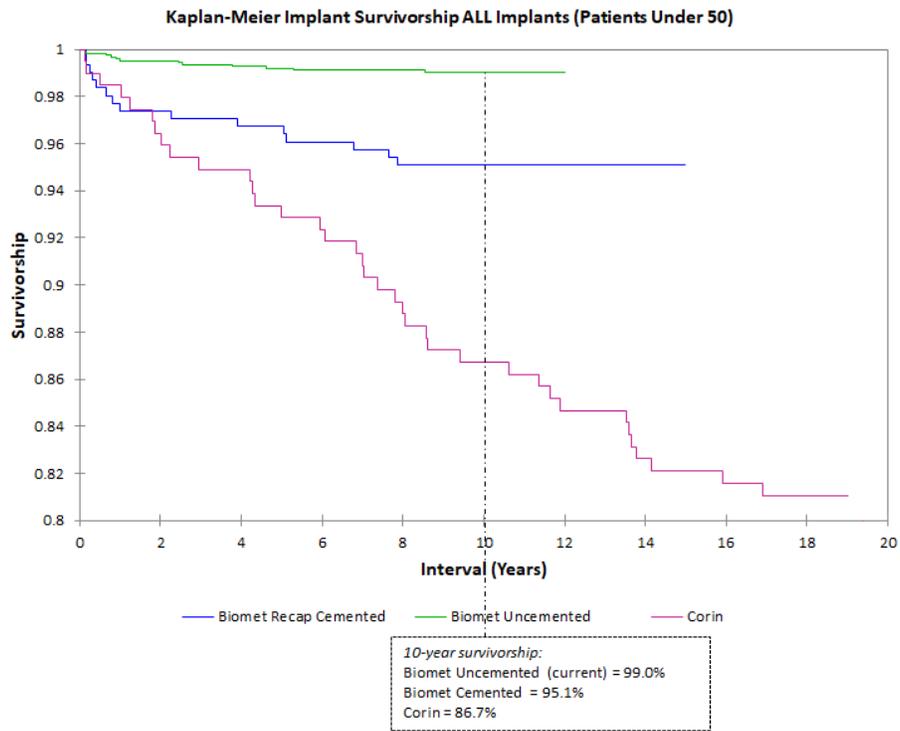
Includes ALL implant types*: 5800 cases over 18 years

**unless noted otherwise in each graph*

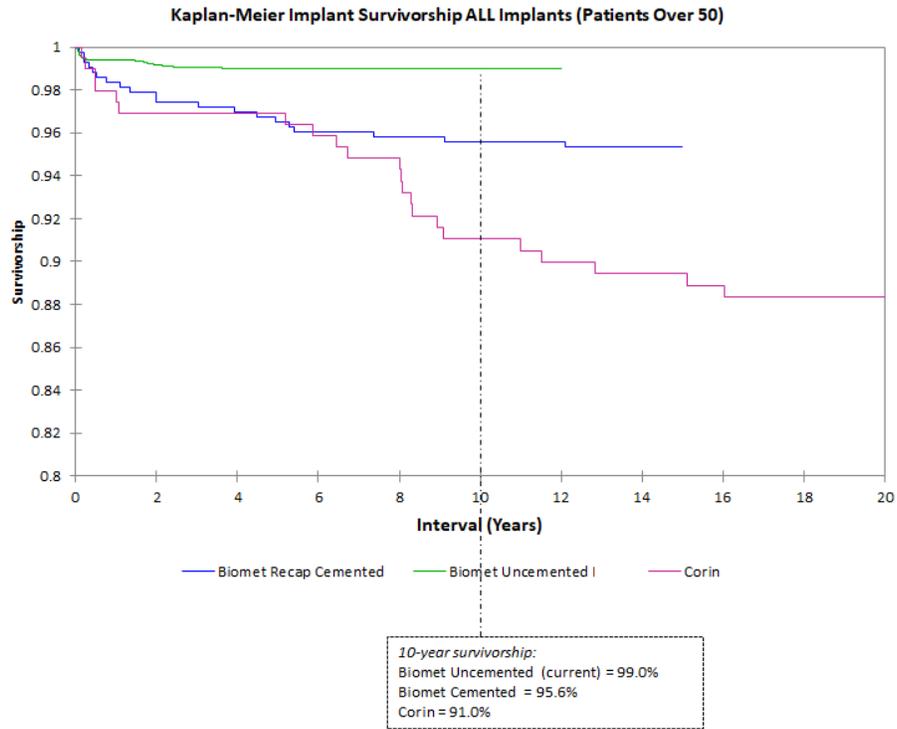
Survivorship of hip resurfacing continues to improve as we gain more experience and find measures to prevent failures. These survivorship curves give the reader an opportunity to see what the odds are that their implant will still be functioning at some time point after implantation. We have used three implant systems in the last 18 years. Unless specified the results include unselected consecutive patients (includes both genders, all ages and all diagnoses). We present four Kaplan-Meier survivorship curves: all implant groups, all implants for patients under 50 at time of surgery, all implants for patients over 50 at time of surgery, Biomet implants grouped by gender.



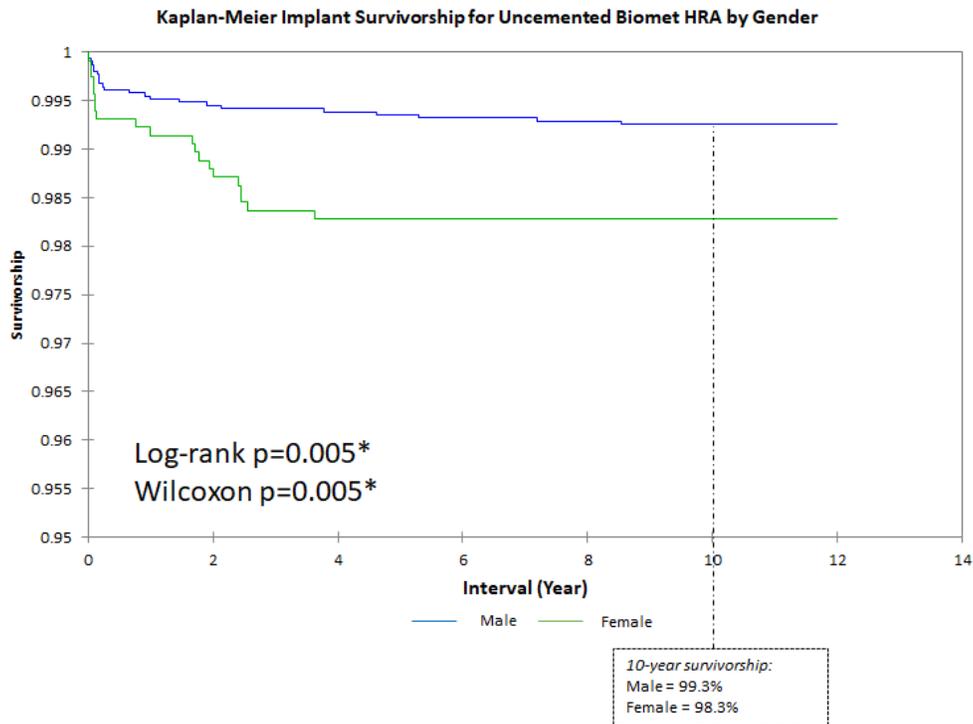
Notice that patient follow-up is longer for the Corin and Hybrid (cemented) Biomet groups. All Biomet hybrid implants (n=739) are now a minimum of 12 years old, all Corin Hybrid implants (n=373) are at least 15 years old. Results are steadily improving with improvements in implants, knowledge about resurfacing and surgeon experience. Current 11-year implant survivorship with the Biomet uncemented implants (n=4700) is 99%.



Survivorship continues to improve with experience. The standard for “excellent survivorship” in Total Hip Replacement (THR) is >95% 10-year implant survivorship. However, reported registry results for THR in patients under 50 is only 80% 10-year implant survivorship. It can be seen here that 10-year survivorship for our current implant, the uncemented (UC) Biomet ReCap, is at 99%. Implant survivorship does not drop off in our younger patients with HRA as it does for reported results on THR. THR lasts reasonably well in older folks for whom golf and walking are considered an “active” lifestyle, but this is not adequate for younger patients with a sporting lifestyle.



When comparing this graph with that of under 50 (see above), it can be seen that implant survivorship does not depend on age for HRA at our practice. The NICE standard for “excellent survivorship” (>95% at 10 years) has been achieved in our Biomet hybrid (H) group. With 99% 10-year survivorship, the current Biomet uncemented (UC) device exceeds this standard.



Women have historically had higher implant failure rate with HRA than men. This is primarily due to two factors: Dysplasia is more common in women, which carries higher failure rate with hip replacement in general. Also, women usually require smaller bearing sizes, which are more prone to wear failure from edge loading resulting in metallosis. **Both of these problems have been solved at our practice and are reflected in our improved results in women.** The last wear failure was from a procedure performed in August 2009; the last acetabular failure due to dysplasia was from a procedure performed in December 2007. Currently, 10-year implant survivorship in men is 99.3% and women is 98.3%, which is far better than the reported registry value of 80% 10-year survivorship for young women with THR.

I have reviewed the above and understand the risks involved with this operation. I would like Dr. Thomas Gross to perform hip resurfacing on me.

_____	_____
Patient Signature	Date
_____	_____
Witness Signature	Date