

**Preliminary Results Using  
the Duracon Knee System**

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### Introduction

This report includes the results of a short-term follow-up using the Duracon® Knee System. The author is in private practice, in a Mid-Western US city of 270,000 inhabitants. In this study, the author has incorporated the Duracon knee into his practice while continuing to perform surgery with another total knee implant, which he has used over the last 12 years. This study will compare the Duracon Knee to the system with which the author has substantial familiarity. Results will be reported annually for five years.

### Materials & Methods

From July 1996 to January 1998, the author performed 42 cases using the Duracon Knee System (Howmedica, Inc, Rutherford, NJ, USA). During that same period, 326 of the other knee were also implanted. All Duracon implants were completely cemented. All of the other system's knees were also completely cemented. The standard Duracon femoral component, the cruciform baseplate with plastic insert and the all-poly patella were used. A posterior referencing surgical approach was used with the two knee systems.

Both groups of patients were similar in sex, age and average length of surgery.

### Results

The short term results for the Duracon versus the other knee system reveal that the overall Hospital For Special Surgery Scores were 84.9 and 83.5 respectively. The average Knee Society Scores were 90.5 for Duracon versus 87.7 for the other knee. Postoperative average flexion was virtually identical with 108.7deg. for Duracon and 107.9 for the other knee system. The post-operative

manipulation (performed 6 to 8 weeks after surgery) rate was 11.1% for Duracon and 9.1% for the other knee.

There were no infections in either group. Radiographic results were equally good except for the appearance of bilateral patella fractures in one patient who had received bilateral knees performed with the other system.

GENDER	Duracon	Other
Female	29	209
Male	13	117
Total	42	326

AGE	Duracon	Other
Average	64.4 Yrs.	66.8 Yrs.
Range	45 – 77 Yrs.	33 – 92 Yrs.

FOLLOW-UP	Duracon	Other
< 6months	18	140
6–12 months	10	98
> 12 months	14	88

CLINICAL SCORES	Duracon	Other
HHS – avg.	84.9	83.5
HHS – range	55 – 95	46 – 96
Knee Society – avg.	90.5	87.7
Knee Society - range	61 –100	25 – 100

ROM	Duracon	Other
Avg. Flexion	108.7	107.9

	Duracon	Other
Infection	0/42	0/42
Manipulation	5/42	30/326
Patella Fracture	0/42	2/326

**Discussion**

These results are relatively short-term. These cases will be followed for five years before many conclusions can be drawn. Nonetheless, it is apparent that the learning curve for the Monogram® instrumentation use with the Duracon system is short, as the results are similar between Duracon and the knee system the author has been using for the last 12 years. The instrumentation is straightforward. Good alignment and accurate bone cuts have been the norm with the Duracon system. It is also encouraging to see that in the early follow-up period, the Duracon results demonstrate a positive outcome; results that are equal to those achieved by the system with which the author has had an extensive experience.

**Conclusion**

This study, with patients receiving a Duracon knee compared with patients receiving a knee with which the author has much greater familiarity indicates that the short term performance of the two knee systems is equal. The learning curve on the Duracon system and the associated Monogram instruments has been shown to be short. This group of Duracon patients will continue to be followed for five years. The very early results are encouraging.

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