

# HOSPITAL PHYSICIAN®

## ORTHOPAEDIC SURGERY BOARD REVIEW MANUAL

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## Primary Total Knee Arthroplasty

**Series Editor: Robert T. Trousdale, MD**

*Assistant Professor of Orthopaedic Surgery, Mayo Graduate School of Medicine; Consultant, Department of Orthopaedic Surgery, Mayo Clinic, Rochester, MN*

**Contributing Author: Mark W. Pagnano, MD**

*Assistant Professor of Orthopaedic Surgery, Mayo Graduate School of Medicine; Consultant, Department of Orthopaedic Surgery, Mayo Clinic, Rochester, MN*

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#### I. INTRODUCTION

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- A. Total knee arthroplasty (TKA) is a reliable and reproducible procedure for properly selected patients.
- B. TKA has been facilitated by advances in instrumentation, prosthetic design, and surgical technique.
- C. The implant survival rate of TKA is 91% to 98% 10 to 15 years after the operation (**Table 1**).

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#### II. PATIENT SELECTION

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- A. **Indications.** The following are the general indications for TKA. The indications have been expanded to include patients younger than 55 years.<sup>1</sup> Results for specific diagnoses are presented in **Table 2**.
  - 1. Daily pain unresponsive to trial of conservative management

- 2. Knee pain that limits activities of daily living
- 3. Radiographic evidence of marked degenerative changes and loss of joint space in the medial and/or lateral tibiofemoral compartment and in the patellofemoral compartment

- B. **Contraindications**

- 1. Ongoing infection
- 2. Disruption of the extensor mechanism
- 3. Complete ankylosis or arthrodesis of the knee
- 4. Marked neurologic deficit in the lower extremity
- 5. Inability of patient to work hard after surgery to regain full knee extension and maximal knee flexion

- C. **Risk factors for complications and poor results.**

- Patients with the following disorders are at risk of less than ideal results after TKA. They are at higher risk of complications and poor functional results despite adequate pain relief than are other patients.
- 1. Marked obesity
  - 2. Diabetes mellitus