

# Introduction

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The first total knee arthroplasty (TKa) was introduced in 1974. (**Insall J.et al.,1976**).

traditionally, an extensile approach was used when performing a TKA to facilitate appropriate placement of both instruments and components. Surgical dissection was accomplished through a 20-25 cm midline skin incision. Most commonly, a long medial Para patellar arthrotomy was made although some surgeons preferred a subvastus or midvastus approach. This was followed by extensive soft-tissue dissection, as well as eversion and lateral dislocation of the patella.(**Malkani A.L.et al.,1995**).

Minimally invasive surgery for knee arthroplasty began in the late 1990s with several limited extensile approaches have evolved from the traditional extensile approaches including the limited medial parapatellar arthrotomy, limited midvastus, limited subvastus, and quadriceps sparing approaches. (**Jennifer L.C and Fred D., 2006**).

Minimally invasive surgical (MIS) techniques attempt to decrease the need for exposure by using downsized instruments and a mobile soft tissue window. The MIS techniques also avoid patellar eversion and tibial dislocation. (**Bonutti P.et al.,2004**).

New instruments that are smaller than the traditional instrumentation were used for minimally invasive total knee replacement to facilitate the limited approach These cutting blocks have been downsized 40% from the original instrumentation.(**Tria A and Coon T 2003**).

There several theoretical advantages of less invasive surgery over traditional TKR including diminished postoperative morbidity, reduction in postoperative pain, decreased blood loss and a quicker recovery. **(Jennifer L.C and Fred D., 2006).**

Critical of the minimally invasive approach is patient selection, because all cases may not be performed with limited dissection The ideal patient would have a fixed angular deformity of less than or equal to 10 degrees varus or greater than or equal to 15 degrees valgus; less than or equal to 10 degrees flexion contracture; and greater than 90degree arc of motion. **(Giles R.S. and Alfred J.T.,2004).**

patients with complicating medical problems such as rheumatoid or inflammatory arthritis, diabetes, and those patients who have had prior surgery should be considered for the more traditional extensile exposure. **(Scuderi G.R et al.,2004).**

Clinically, also have noted that muscular males, obese patients, and those patients with larger femoral transepicondylar widths, wide femurs, or a short patella tendon typically require greater exposure with traditional techniques. **(Tenholder M.et al.,2004).**