

---

# The General Principles of Patient Positioning and Setup

# 1

G. Demey and Robert A. Magnussen

In this book, we describe several surgical techniques, some of which are technically demanding. Although these operations differ significantly in many ways, the initial positioning and setup of the patient generally remains the same.

- The procedure is performed under general anesthesia or spinal anesthesia. Less commonly the procedure can be performed with a nerve block and mild sedation.
- The patient is positioned on the operating table in the supine position. A padded horizontal post is positioned distally on the table to hold the knee in a 90° flexed position. The use of such a device for positioning has the advantage of allowing the knee to be held at either 90° of flexion (when the heel of the foot rests on the post) or 110° of flexion (when the toes of the foot rest on the post) without changing the post position.
- A lateral support holds the knee in this position, with the thigh resting on the support and slight external rotation of the hip (Figs. 1.1 and 1.2).
- The pneumatic tourniquet is placed as high as possible on the thigh. Once the lower limb has been prepped, it is exsanguinated by elevation. Tightly wrapping the leg or the use of a rubber Esmarch for exsanguination is not necessary. The tourniquet is then inflated to 300 mmHg. If the patient has a history of vascular disease, the tourniquet is positioned as proximally as possible, but generally not inflated.
- The surgical leg is prepped with a Betadine and alcohol solution. After prepping the foot, it is covered with a size nine glove. The leg is then elevated and held by the foot while the rest of the limb is prepped. A stocking is then rolled up the leg to the level of the tourniquet, and an arthroscopy drape is used to complete the sterile field (Figs. 1.3 and 1.4).
- The stocking is opened with scissors. The planned surgical incision and any previous surgical scars are marked with a pen. An antiseptic oposite, Betadine ® Ioban, is applied, always allowing for the possibility of extending the expected incision proximally or distally.

---

G. Demey, MD (✉)

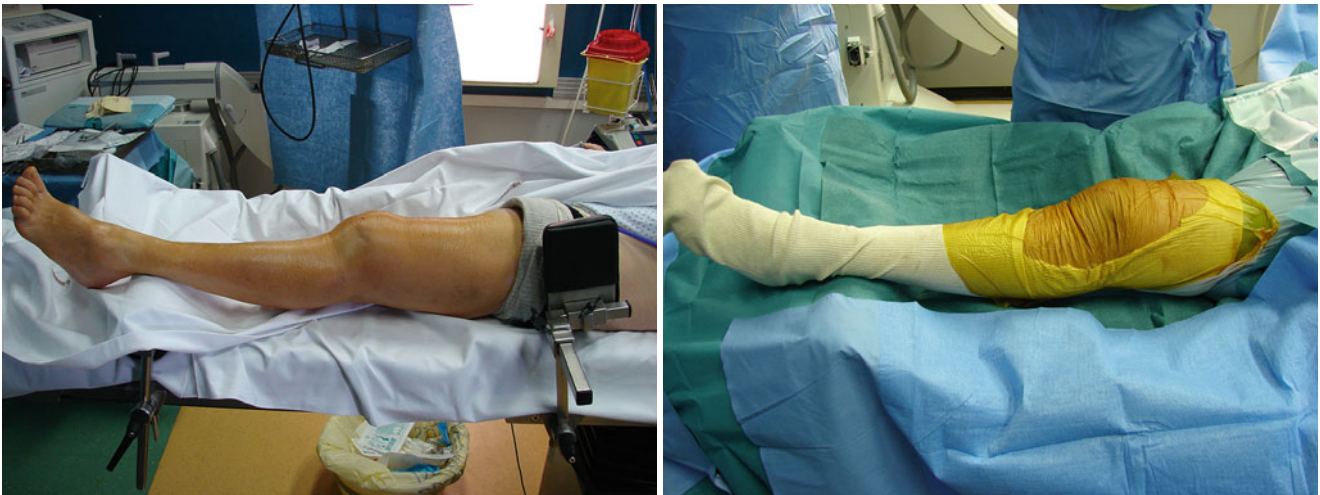
Lyon Ortho Clinic, Clinique de la Sauvegarde,  
29B avenue des Sources, 69009 Lyon, France  
e-mail: [demeyguillaume@gmail.com](mailto:demeyguillaume@gmail.com)

R.A. Magnussen, MD, MPH

Department of Orthopaedic Surgery, Sports Health  
and Performance Institute, The Ohio State University,  
Suite 3100, 2050 Kenny Road, Columbus, OH 43221, USA  
e-mail: [robert.magnussen@gmail.com](mailto:robert.magnussen@gmail.com)



**Figs. 1.1 and 1.2** Distal and lateral supports maintain the knee in 90° of flexion. Note the slight external rotation of the hip prior to the inflation of the tourniquet



**Figs. 1.3 and 1.4** Extension of the knee