

# **Complementary training in lower limbs reconstruction at Hôpital Maisonneuve-Rosemont**

## **Arthroplasty group:**

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## **Articular Reconstruction Unit**

The Arthroplasty Unit of Hôpital Maisonneuve-Rosemont is a Quebec referral centre for hip and knee articular replacement. The specific clientele referred to Hôpital Maisonneuve-Rosemont consists mainly of young patients suffering hip and knee arthrosis.

All of the surgeons in the unit have been specifically trained in hip and knee surgery, thus ensuring quality service. Research represents an important axis for this unit. A number of ongoing projects are aimed at improving postoperative analgesic treatments, various cutaneous incisions and new implants favoring a more rapid return to regular activities. Moreover, new techniques of minimally invasive surgery have been developed to afford more effective rehabilitation and allow the patient to return home as soon as the day after the surgery.

### **Particular clientele**

The Arthroplasty Unit enjoys unique expertise in Quebec in the treatment and prevention of hip arthrosis in young patients. The Service offers early treatment of hip arthrosis by hip arthroscopy and periacetabular osteotomy. These techniques allow young patients to avoid or delay joint replacement.

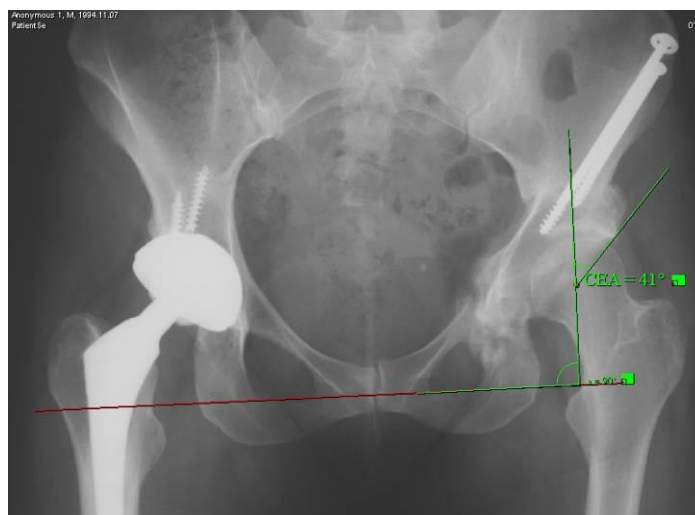


Figure 1: 42-year-old patient requiring a total alumina-alumina prosthesis of the right hip and a periacetabular osteotomy of the left hip.

When articular degeneration in young patients is too severe, conservative joint replacement surgery is offered: metal-metal resurfacing of the hip, shorter uncemented femoral stem and anatomical hard on hard bearing. The Service is a pioneer in these techniques in Canada and currently possesses great experience in this type of surgery. In cases of knee arthroplasty, we try to optimize patients clinical results using anatomical implantation with computer navigation or personalized instruments.



Figure 2: Left, metal-metal resurfacing of the hip. Right, unicompartmental prosthesis of the knee.

Over the years, the Service has established peak expertise in prosthetic revision surgery.

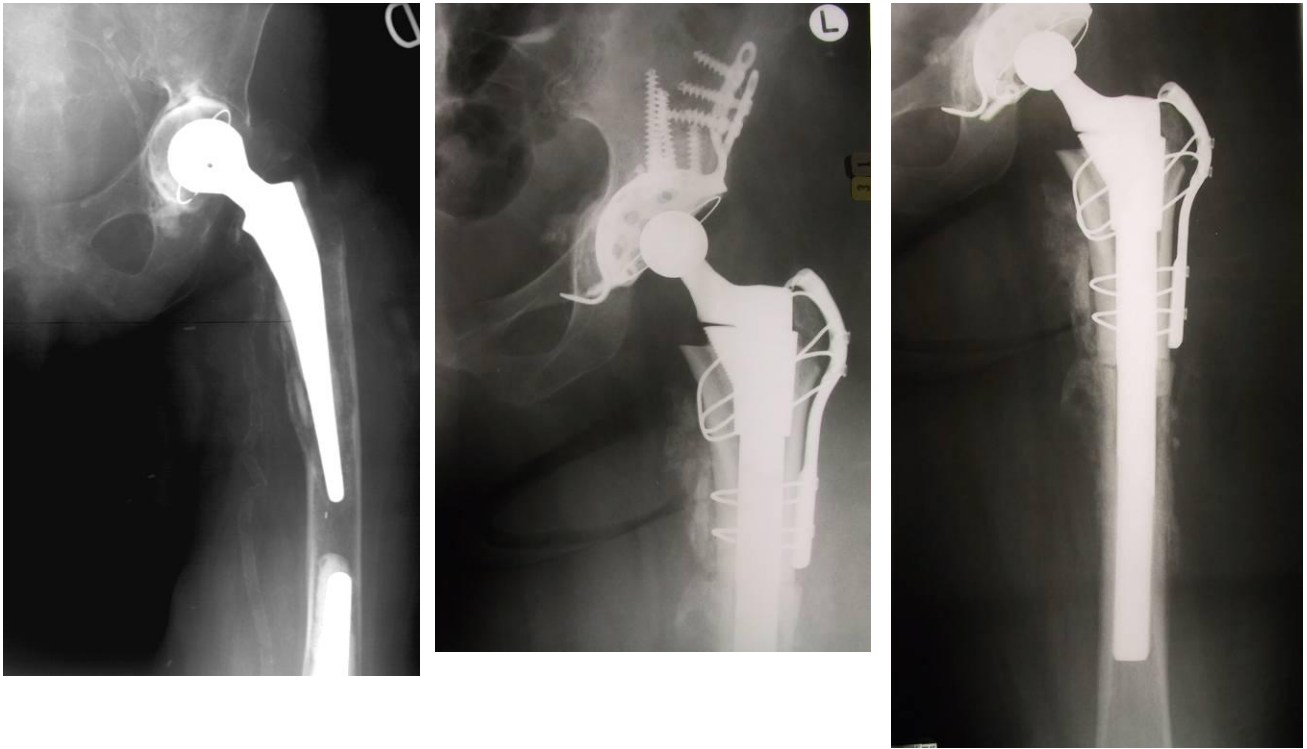


Figure 3: Left, total prosthesis of loose hip with significant bone loss. Centre and right, prosthetic revision with proximal femoral allograft and acetabular cage.

### **Teaching activities**

The Orthopedic Service of Hôpital Maisonneuve-Rosemont is one of three hospital training centres for medical residents in orthopedics in the Édouard Samson Program in Orthopedics of the Université de Montréal (Hôpital Sacré-Cœur, Hôpital Sainte-Justine and Hôpital Maisonneuve-Rosemont). We offer doctors-in-training excellent training in joint replacement techniques.

### **Research activities**

The Service directs several research projects aimed at improving patient care. Prospective and randomized projects are favored. We are currently improving peri-operative analgesic techniques to reduce pain associated with joint replacement surgery. In addition, we seek to determine if conservative surgery, such as resurfacing of the hip, serves to improve function and reduce the length of convalescence. Our team includes 3 full-time research assistants and a computerized database. We have a KG device to better evaluate knee kinematics.

## **Description of advanced training in reconstruction of adult lower limbs**

The main objectives of this advanced training are:

1. To learn and master the treatment of early arthrosis of the hip and knee with techniques of joint preservation.
2. To master hip and knee joint replacement techniques (primary and revision).
3. To undertake and conduct a clinical research project in the area of lower limb reconstruction.

During his/her clinical training, the monitor will treat patients suffering hip pathologies by various means: Pelvic osteotomy, proximal femoral osteotomy, hip dislocation and osteoplasty, arthroscopy, total hip prosthesis, revision and "resurfacing."

Further, he/she will treat articular pathologies of the knee by the following means: tibial or femoral osteotomy, total prosthesis of the knee and unicompartmental prosthesis.

The clinical monitor will play an active role in the lower limb reconstruction team. Under supervision by orthopedist members of the Service, he/she will be involved with preoperative patient evaluation, assisting in operations, performing surgery and post-operative follow-up. In addition, the clinical monitor will have active instructional tasks relative to students and residents of the Orthopedics Service.

Research activity will be another priority for the clinical monitor. There are always several ongoing prospective projects assessing various problems related to adult lower limb reconstruction. He/she will work closely with the research assistant in coordinating one or more projects leading to at least one publication during his/her training.

The fellow's weekly schedule entails 2-3 days in the operating room, 1 day in the clinic and 1-2 days of research activities.

This training takes place at Hôpital Maisonneuve-Rosemont, a University Hospital Centre, affiliated with the Université de Montréal. To be able to practice within our establishment, you will need a temporary practice permit from the Quebec College of Physicians as well as the approval of your training by the Department of Surgery of the Université de Montréal

A fixed salary of 40 000 can\$ along with Montreal University tuition fees are offered by Maisonneuve-Rosemont research fund. Assistance towards finding a residence will be offered to the clinical monitor. However, the clinical monitor will be responsible for all residence-related costs and personal expenses. Transportation, health insurance and any other expenses related to the training will be the responsibility of the clinical

monitor. Four weeks of vacation a year are provided for, and your participation in the congress of the Quebec Orthopedic Association is strongly encouraged.

If you wish to apply for the post of Fellow in our Service, you must send a letter of intention and your CV to:

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