**Mark S. Sanders MD FACS**
**Presurgical Total Knee Replacement Information**


All surgery carries risks. This document has been compiled to educate patients on the risks/complications of Total Knee Replacement. At the Sanders Clinic we recognize these risks and take preemptive action to minimize their occurrence. **THE MOST IMPORTANT RISK FACTOR FOR POSTOPERATIVE COMPLICATIONS IS ENTIRELY UNDER THE PATIENT'S CONTROL. <u>THESE PROCEDURES CANNOT BE SUCESSFULLY PERFORMED ON THOSE WHO CONTINUE TO USE TOBACCO OF ANY FORM.</u>**

1. **Nerve or Vessel injury.** These are uncommon complications. Avoidance of these problems is best accomplished by careful surgical technique, and minimum use of a tourniquet. Immediate recognition and repair of an injured structure is indicated in such cases.

2. **Thrombosis/embolism.** These complications can occur with greater frequency and are best avoided. It has been shown that their occurrence is reduced when spinal anesthesia is used. Furthermore use of compression stocking, foot pumps and mechanical venous compression is our routine. Certain patients with greater risk will be placed on blood thinning medication. All patients must discontinue the use of tobacco and all patients must be walking no later than the day after their procedure.

3. **Disturbed wound healing.** This problem is preemptively addressed by assuring that patients are on a high protein diet with adequate caloric intake. Placing Platelet Rich Plasma (PRP), which is spun down from the patient's own blood into the wound has shown to accelerate wound healing. Avoiding certain anticoagulants in the early period leads to less accumulation of blood in the wound.

4. **Early or late infection.** This is a very serious event that can occur in less than 1% of patients when antibiotics are given before surgery. The incidence is further reduced by preoperatively culturing the noses of patients looking for Staphylococcus bacteria. Those patients who harbor these bacteria can be treated with nasal antibiotic ointment and a different preoperative antibiotic. Furthermore, regular care of the surgical wound by showering with Hibiclens soap, combined with placement of Triple Antibiotic ointment, will keep the wound from being colonized. Treatment of a deep infection involves surgical removal of the prosthesis, replacement of the prosthesis with a temporary spacer, intravenous antibiotics for no less than six weeks, and then replacement of a new total knee prosthesis. Patients with hip prostheses must inform all of their physicians before invasive medical or dental procedures are performed such that those practitioners can prescribe an appropriate antibiotic in advance of that procedure.

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5. **Hematoma.** This is blood that accumulates in the wound and may require a return trip to the operating room for evacuation. We strive to prevent this problem by taking down the tourniquet to electrocoagulate the small bleeding vessels in all surgeries, use of Platelet Rich Plasma to jump start the coagulation and healing process, and an adequate cold/compression dressing. This device is called the Cryo/Cuff® and is a mandatory part of the process.

6. **Loosening of the prosthesis.** This complication occurs after a long period when repetitive and excessive impacts cause the bone-cement-prosthesis interface to fail. It is characterized by late pain. In as much as Dr. Sanders does not regularly install knee prostheses in younger more active patients, and senior citizens are typically not involved in high impact activities, this is not a common event, but is likely in younger and more active people.

7. **Assisted weight bearing for several weeks postoperatively and the need for range of motion exercises**. After surgery two-handed support with a walker or crutches are necessary for several weeks. All surgical procedures are associated with stiffness in the part, and attention must be paid from the day of surgery to obtaining and maintaining full motion of the knee. This is much easier to obtain in the Recovery Room than it is to obtain in the Physical Therapy Department after several weeks of immobilization, so exercises start immediately.

8. **Fractures and Dislocations**. After knee replacement, patients are not immune from further injuries. The most common injuries are fractures of the distal femur or patella. While these are not common, when they occur they require operative fixation. Dislocations of the patella are much less common today than in previous generations of knee replacements and/or knee replacement techniques. If this occurs, surgical revision of the prosthesis is often necessary. Dr. Sanders utilizes reliable and time tested knee prosthesis with the latest instrumentation. These advances have made these problems far less common than in the distant past.

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9. **Medical Complications**. Surgery always carries risk of complications remote to the operated part. At the Sanders Clinic, we do not regularly do hip replacements on young patients. Older patients may have heart, circulatory, pulmonary, kidney, arterial, venus, and diabetic problems. Our total hip replacement patients typically are seen before surgery by an internal medicine doctor; undergo vascular tests read by a vascular surgeon, and frequently by a cardiologist as well. Spinal anesthesia reduces the incidence of medical complications, but despite our best efforts, they still occur.

I have read this document and have had my questions answered by Dr. Sanders or his staff. I agree to completely avoid any and all tobacco products from this day forward.

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Patient signature

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Date

_____
Witness