

TAKE GOOD CARE OF YOURSELF AND LOVED ONES

ORT- HOPE- DICS



Orthopedics

Orthopedics and Traumatology is a sphere studying on the traumatic, congenital or subsequent abnormalities of the musculoskeletal system. In orthopedics, thanks to the sub-branches developed in recent years, scientists have begun to examine and treat certain parts of the body in more detail under sub-headings.

Prusa Medica network is composed of experienced faculty members and experts in the field of Orthopedics and Traumatology, and has an organization of world level with its sub-branches in the general orthopedics, arthroscopic surgery, sports injuries, joint prostheses (arthroplasty operations), treatment of deformity and shortness, spinal diseases, foot diseases, treatment of musculoskeletal system tumors, treatment of congenital anomalies and children's problems, treatment of neurogenic muscle and bone diseases.

Orthopedics Services

- Robotic Surgery
- Sports Orthopedics
- Pediatric Orthopedics
- Arthroscopic Surgery
- Regenerative Orthopedics
- Hand and Wrist Surgery
- Joint Prosthesis Surgery
- Foot and Ankle Surgery
- Spinal Surgery



Reliable spine surgeries with O - ARM

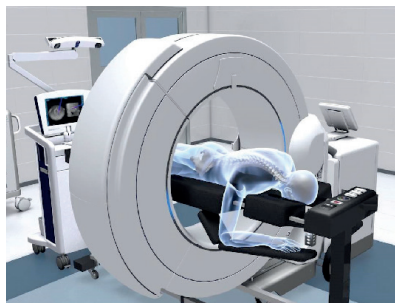
Spinal diseases, which are frequently encountered in the society, restrict the mobility and decrease the life quality. The screwing method used for the disorders diagnosed in the spine, the part of the body that is exposed to the most load, increases the comfort of patients. O-ARM technology used in spine screwing operations does not leave room for any errors.

It is possible to apply computed tomography during any operation with the mobile tomography device, which is a new generation imaging system. With the help of this technology, 2D or 3D imaging can be performed in both brain and spine-spinal cord surgery. Imaging can be performed in 360° and 3D modes in a short period of 13 seconds, and information about the relevant area of the patient on the operating table can be obtained. Thanks to the robotic positioning feature of the system, the device can be approached to the patient table in the operating room very quickly, and tomography images can be obtained. Furthermore, since it receives the images in one shot, the images with the same image quality can be viewed during the operation process with less radiation.

It is frequently used in the screwing operations for spinal deformities, spinal cord compression due to old age, spinal tumors, spinal curvatures in childhood and youth, some developmental spinal diseases and traumatic fractures and dislocations.

Advantages of O - ARM Device

- It increases the success rate, resets the margin of error.
- It provides the surgeon with critical information at each stage, and the risk of recurrence of the disease is reset.
- The patient is exposed to less radiation.
- Leading to a small incision, O-Arm imaging system allows the patient to recover more quickly, and also bleeding is minimal.
- This system minimizes the major risks posed by complex surgeries.
- It ensures to reduce the risk of infection. The risk of stroke due to screw is eliminated.
- Nerve roots reduce the risk of injury and create a safe operating environment.



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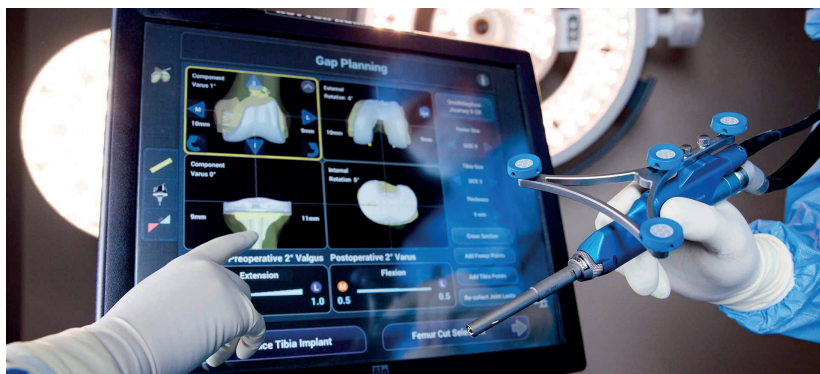
Navio Robotic Assisted Knee Prosthesis Surgery

The NAVIO Surgical System is a robotic assisted knee prosthesis surgery platform that creates a 3D model in horizontal and vertical planes by visualizing the anatomical structure of the knee with mathematical data, without any need for an extra preoperative planning for the partial and total knee prosthesis surgeries.

Knee prosthesis surgeries are carried out by making plans specific to the knee anatomy of the person. NAVIO Surgical System is used for correct positioning and alignment of the knee prosthesis. Because the correct positioning of the knee

prosthesis is an important factor in determining the lifetime of the prosthesis.

In NAVIO robotic assisted knee prosthesis surgeries, virtual description of anatomy of the knee is performed during surgery without any need for pre-surgery CT (computed tomography) scanning, and the soft tissue balance is visualized with mathematical data under the surgeon's control. Thanks to this advanced technology, the implant is placed at the most suitable angle and in the most stable manner, without causing even a millimetric error.





Use of advanced
robotic
technology

Total knee prosthesis surgery

In total knee prosthesis surgery, the entire knee joint is replaced with prosthesis in compliance with the natural knee joint.

Just like in the partial knee prosthesis surgery specified above, your surgeon creates a 3D representation of the unique anatomy of your knee without any need for a pre-surgery CT scanning. Your surgeon uses the information about your knee anatomy to determine the correct size and position of the implant and places the implant according to the measurements. It is seen that ninety percent of people subject to total knee prosthesis surgery have significantly less knee pains and perform their daily activities easily.

Consult your doctor to determine whether or not NAVIO robotic assisted knee prosthesis surgery is suitable for you.

Advantages of total knee prosthesis with robotic surgery

- Use of advanced robotic technology
- Detailed pre-surgery planning possibility with high resolution and patient-specific imaging system
- Minimization of tissue trauma
- Protection of healthy bone stock
- Protection of all ligaments in the knee
- Feeling of a more natural knee
- Faster and more pain-free recovery
- Returning to daily life more quickly
- Longer prosthesis lifetime thanks to the high positioning accuracy of the implants



Faster and
more pain-free
recovery



Partial Knee Prosthesis with Robotic Surgery

Partial knee prosthesis with robotic surgery is an advanced technology that is the result of the combination of modern engineering branches and advanced medical technology and allows the surgeon to design and apply the knee prosthesis suitable for the patient's anatomy.

If the disorder, namely osteoarthritis, in the knee joint is not in the whole joint, but in some part of it, it is appropriate to apply partial knee prosthesis in order to provide a feeling of more natural knee. In the partial knee prosthesis, the cross ligaments are protected, less bone is removed and a smaller incision is applied. It is a less serious surgical intervention for the patient. However, it was not preferred as surgery was a technically difficult operation.

This difficulty has been eliminated thanks to Navio robotic joint prosthesis surgery. The robotic system targets only the knee part damaged by osteoarthritis and protects the healthy tissues and ligaments surrounding that part, and thus, partial knee prosthesis surgeries are performed successfully.

Advantages of partial knee prosthesis with robotic surgery

- Use of advanced robotic technology
- Detailed pre-surgery planning possibility with high resolution and patient-specific imaging system
- Performing partial prosthesis only for the damaged part of the knee in a sensitive manner
- Protection of the healthy bone joint area
- Protection of all ligaments in the knee
- Making a smaller surgical incision
- Minimization of tissue trauma
- Feeling of a more natural knee
- Faster and more pain-free recovery
- Returning to daily life more quickly



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