Saphanous and Geniculate Nerve Blocks for Relief of Chronic Knee Pain

Richard C. Shinaman, MD

Recent advances in the treatment of chronic knee pain have resulted in a novel technique for treating chronic pain in the knee related to almost any cause. More and more research is showing that things like arthroscopic surgery and total joint replacements does not always produce pain relief or long-term success. This new technique can be used for patients before or after surgery. Many recreational and professional athletes have undergone the procedure with great success.

Anatomical studies have revealed that three nerves provide most of the sensation to the knee. The nerve run along both sides of the top bone of the knee joint (the femur) and on one side of the bottom bone (the tibia). Initially, we perform nerve blocks to see how much relief someone gets from the typical knee pain that they experience. Placing local anesthetic around the nerves that provide sensation to the knee "interrupts" the pain signal and allows the system to revert back to a more normal, pain free, firing pattern. If the pain relief does not last for a long enough period of time, then the nerves can be "stunned" or temporarily destroyed by using a radiofrequency probe inserted through a small needle.

The injections are performed in a surgery center under live X-ray guidance (fluoroscopy). You have the option of having IV sedative medications so that you can be comfortable for the duration of the procedure.

The injections or the radiofrequency ablations can be repeated in the future if need be for recurrent pain or disability.

We find that bracing the joint with a stability brace or even exercise compression tape helps to reinforce a long term positive result for the elimination of knee pain.

Once a patient has pain relief in the joint, it is important to work on strengthening and stability of the joint. We have physical therapy specialists that we work with that can help to design a home program to promote long term stability of the knee. It is crucial that knee pain be presented over the long term with quadriceps and sartorius muscle stability. We recommend that you educate yourself about long-term exercises that will keep your knee strong and stable.

Other options to treat chronic and persistent knee pain include hyaluronic acid (synovial fluid replacement) injections into the joint and platelet rich plasma/stem cell injections. We provide all of these services at Pain Medicine Consultants so feel free to ask your doctor for more information.