

The Subchondroplasty™
(SCP®) Procedure

PATIENT INFORMATION

Why is the Subchondroplasty™ (SCP®) Procedure being recommended for me?

The **Subchondroplasty™ procedure** is designed to treat subchondral defects associated with chronic bone marrow edema (BME) by filling them with a hard-setting, bone void filler.

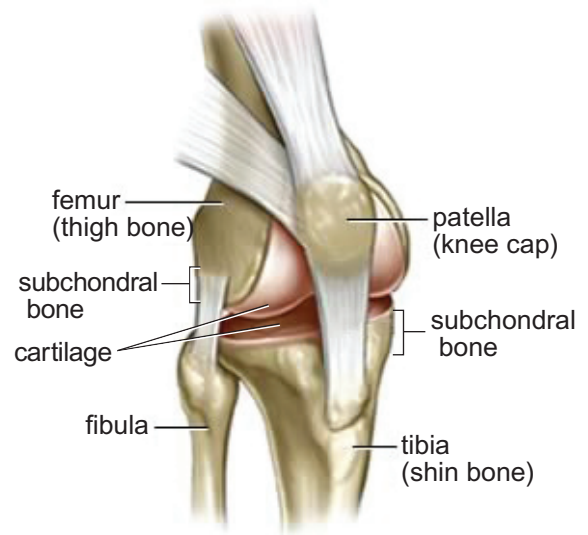
Chronic BME is an inflammation inside the bones of the knee and is shown to be highly correlated to pain. Chronic BME can only be identified on MRI.



MR Image of Chronic BME

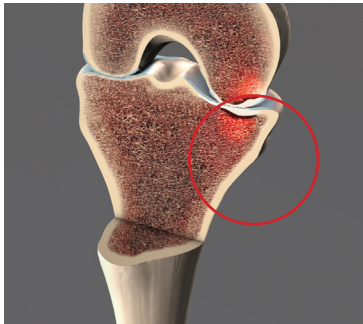
Your knee joint is likely causing you discomfort. Using your MRI results and a clinical evaluation, your surgeon has determined that you have inflammation in your knee joint, and that you may be a candidate for the SCP® procedure.

The Basics of KNEE ANATOMY



The knee is one of the strongest joints in the body and takes a large amount of impact during almost all physical activities. The knee joint includes the end of the femur (thigh bone), top of the tibia (shin bone) and patella (knee cap). Movement of the joint is regulated by surrounding muscles and ligaments which control bending, extension, and rotation. The meniscus, cartilage, and synovium provide shock absorption and fluid movement between the bones.

Chronic Bone Marrow Edema (BME)



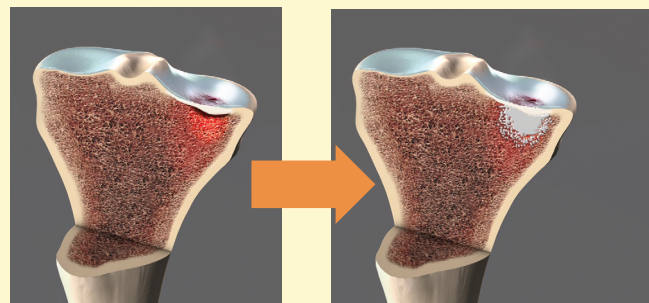
Rendering of
Chronic BME

Chronic BME is a defect of bone typically located in the subchondral bone (just below the cartilage). Chronic BME is characterized by an area of inflammation surrounding micro fractures. Many surgeons believe that chronic BME will not heal without treatment, which can include conservative care or surgical intervention. Chronic BME is also commonly called reactive edema and is thought to be similar to stress reactions seen in other joints.

What Should I Know About the SCP® Procedure?

The SCP® procedure is a minimally invasive surgery performed either alone or in conjunction with other arthroscopic interventions. The SCP® procedure is designed to access and treat subchondral defects associated with chronic BME. The SCP® procedure does not treat or repair damage to the cartilage, ligaments, meniscus, or synovial tissue.

During the procedure, your surgeon will use an intra-operative x-ray and a small pin to create an access portal into the subchondral defect in your bone. Your surgeon will then fill the area with a calcium phosphate bone substitute that sets hard and allows new, healthy bone, to replace the defect. Patients are typically released to return home the same day of the surgery.



Before the SCP® Procedure

After the SCP® Procedure

What Are Some Precautions and Risks for This Treatment?

All surgical procedures, including minimally invasive treatments carry a certain level of risk. Only your surgeon can determine if you are healthy enough for surgery. Talk to your surgeon for a complete assessment of possible risks.

What Are Some Alternatives to the SCP® Procedure?

Patients may consider trying conservative treatments such as non-steroidal anti-inflammatory medicine, physical therapy, and/or unloader bracing. Additionally, patients may also consider alternative surgical interventions such as high-tibial osteotomy and total knee replacement.



What Will My Recovery Look Like?

- Following surgery, you can put weight on your leg as tolerated (unless otherwise instructed). Walking may be painful and it is typically necessary to use a cane, crutches, or walker for a short period of time after surgery.
- You will be given a prescription for outpatient physical therapy. You should start therapy within a few weeks following surgery.
- Some patients will report significant pain for 1 -2 days immediately following surgery. To control this pain:
 - Use pain medicine as prescribed by your doctor
 - Elevate your leg above the level of your heart
 - Apply ice to your knee for 15 minutes 3 or 4 times per day
- If a sterile dressing was applied to the area, it may be removed within 1–2 days following surgery.
- Any adhesive strips under the dressing, should not be removed. However, if they wash off when showering, it is not a problem.
- You may shower the day after surgery when the dressing is removed. However, do not soak in a tub, pool or any other body of water for two weeks after surgery.
- If you have signs of infection, which include fever of 101 degrees or greater, flu-like symptoms, redness, swelling, or excessive pain, please call your surgeon immediately.

GLOSSARY OF TERMS

- **Chronic Bone Marrow Edema (BME)** is a term used to describe a defect inside the subchondral bone of the knee joint. The defect is often marked by inflammation, edema, and micro fractures. The Chronic BME can be seen on T2 MRI and is often found in patients with osteoarthritis.
- **Conservative treatment** is a term used to describe any treatment option that does not involve surgery. Conservative treatment options vary depending upon the patient's symptoms, from pain medications, to physical therapy/exercise, to injections, and knee braces.
- **High-Tibial Osteotomy** is a surgical procedure in which the tibia is cut, either to remove a wedge or insert a wedge, just below the knee joint, to change the alignment of the joint.
- **Knee structures** are the supporting ligaments, meniscus, cartilage and bone which provide support and function for the body during load-bearing and movement.
- **Subchondral Bone** refers to the region of bone from 0–10mm below the bone surface. The subchondral bone is the region of bone directly below the cartilage.
- **Total Knee Replacement** is a surgical procedure wherein the ends of the bones in the knee joint are removed and replaced with artificial components to restore joint function and relieve joint pain.

The Subchondroplasty™ procedure is not for everyone. Please consult your physician to determine if this procedure is right for you.

