ROSENBERG COOLEY METCALF
THE ORTHOPEDIC CLINIC AT PARK CITY
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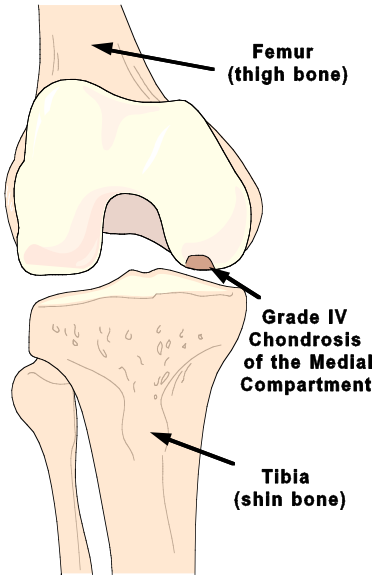
Grade IV Chondrosis of the Medial Compartment



Front (anterior) view,
Knee bent, (flexed) at 45
(kneecap not shown)

DIAGNOSIS: Your diagnosis is full-thickness (Grade IV) cartilage loss of the inner (medial) weight-bearing compartment.

INJURY or CONDITION: Cartilage cracking, fragmentation and erosion over time has resulted in full-thickness loss of your weight-bearing (articular) cartilage, often altering the alignment of your lower extremity towards bowing (bow-legged). This condition is osteoarthritic in nature.

CAUSE: The most common cause is abnormal "wear and tear" of the weight-bearing (articular) cartilage layer within the medial (inner) weight-bearing compartment exposing bare bone. This may have evolved from an unrecognized, high-impact injury, excessive weight or prolonged weight-bearing on hard surfaces. It often results after injury or loss of the shock-absorbing fibrocartilage (meniscus) within the inner (medial) compartment.

SYMPTOMS: The typical symptom is increased pain related to weight-bearing activities which is relieved by rest. The pain is often consistently located along the medial (inner) aspect of the knee. Swelling and weakness are commonly present. A loss of knee motion (straightening or bending), and limping are often present.

TREATMENT: Our standard treatment usually includes:

1. Weight loss: 1 lb. of upper body weight translates to 4 lbs. of force on the knee.
2. Regular non-weight-bearing exercises, such as cycling, rowing or swimming.
3. Cartilage and bone nutrients like glucosamine, chondroitin, calcium and vitamin K twice per day.
4. Tylenol and/or anti-inflammatory medication (i.e. Diclofenac/Voltaren or Ibuprofen/Motrin).
5. Walking and standing on softer surfaces.
6. Wearing soft-soled shoes.
7. Arthroscopic surgery to remove damaged and inflamed tissue. Surgical stabilization of the cartilage defect may be needed. Surgical stimulation to replace lost cartilage is successful in cases where the surrounding cartilage is healthy.
8. An open surgical procedure, which involves a bone cut (osteotomy) may be necessary to re-straighten the lower extremity and unload the effected compartment.

PRECAUTIONS: Important precautions:

1. Avoid abusive activities which involve impact or shear stress on the knee, such as tennis and running.
2. Anti-inflammatory medication should be taken with food. If you remain on anti-inflammatory medication for six months, a blood test is indicated to check for side effects.
3. Your activities and diet should be structured in order to optimize bone density. Safe, moderate exercise is usually best on an every day basis.
4. No single treatment is optimally successful. Try to follow all recommendations in order to relieve pain and delay the progress in development of osteoarthritis.
5. Narcotic pain relievers are not recommended because this is a chronic condition.

RECOVERY: Total recovery is rare. Treatment is designed to relieve pain, improve knee function and delay the requirement of knee replacement surgery. In cases treated by arthroscopic surgery alone, recovery is gradual, over 2-6 months. If a correction bone cut (osteotomy) is performed, crutches are generally utilized for one month and full recovery may take 6-9 months.