"OATS" ARTICULAR CARTILAGE REPAIR SURGERY

This information sheet provides information on the nature and purpose of the procedure of Osteochondral Autograft Transfer cartilage repair surgery (OATS) in addition to an outline of the post-operative rehabilitation.

Purpose and description of the procedure

This operation is performed to repair small areas of articular cartilage damage affecting the weight bearing aspect of the femur (thighbone) part of the knee joint. In the procedure cores or plugs of healthy articular cartilage and underlying bone is transplanted from a lesser used area of the knee into the damaged area on the weight bearing aspect.



Normally, the joint consists of a layer of smooth articular cartilage covering the end of the bone providing an almost frictionless articulation with its counterpart on the other side. Once damaged the joint surface has unfortunately very little intrinsic capability to repair itself, and the roughened area can lead to pain on activity or catching of the joint surfaces.

The procedure is usually performed arthroscopically without opening the knee. In this way recovery and postoperative discomfort is minimised. The donor area within the knee heels with scar tissue and the transplanted plugs gradually unite and join to the new area over a 2-3 month period.

The aim is to achieve a nice smooth new surface. Dedicated instruments are carefully used to take one or two 8 or 10mm plugs and implant them in the damaged area.

Post operative care

The procedure is usually performed as a day case and carried out at the same time as an ordinary arthroscopy of the knee. There is no extra incision but the cuts for the arthroscopy may be slightly bigger than usual. On return from theatre there is a padded bandage applied to the leg. This bandage is removed on the day following surgery.

Weight Bearing: WEIGHT BEARING AS TOLERATED is allowed using crutches for 6 weeks though usually this is graduated over the first few weeks as symptoms of discomfort improve.

Movement of the knee joint: Early movement (flexion) of the knee is encouraged immediately following surgery to help with nutrition of the new articular surface. Cycling is a very good exercise and it is encouraged to begin this a week or so after surgery.

Physiotherapy exercises commence during the postoperative phase with static quadriceps and hamstring exercises while working on range of movement using static bike and pool exercises from 2 weeks.

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At 6 weeks: Progression to FULL WEIGHT BEARING is allowed if not achieved before. Load and strengthening exercises begin, building up balance and proprioception work depending on swelling in the knee. Full bending and straightening range of movement exercises are encouraged.

Further rehabilitation: Gradual increase in exercise activity is allowed building up to commencing impact type activities at 3 months (earliest and depends on symptoms). A gradual increase in exercise with pivoting and impact is then allowed expecting maximum improvement by six months. Return to contact sporting activities by that stage if successful.

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