

“OATS” CARTILAGE REPAIR SURGERY

PATIENT INFORMATION. January 2006

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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 localised articular cartilage damage affecting the weight bearing aspect of the femur (thighbone) part of the knee joint. In the procedure a core or plug 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 (Fig 1).

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.

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 heals with scar tissue and the transplanted plugs (Fig 2) gradually unite and join to the new area over a 2-3 month period.

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. 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.

At 6 weeks: Progression to FULL WEIGHT BEARING is allowed at six weeks if not achieved before.

Further rehabilitation: 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.

After six weeks a gradual increase in exercise activity is allowed building up to commencing impact type activities at 3 months. A gradual increase in exercise is then allowed expecting maximum improvement by six months with return to contact sporting activities by that stage if successful.