# First Study to Report Long-Term Results of OAT Treatment for th

Athletes involved in lifting heavy weights, repetitive elbow motions, or overhead activities are at risk for a condition c osteochondral lesions. Osteochondral lesions refer to damage or defects to the joint cartilage (chondral) that go all the first layers of bone (osteo). Holes in the osteochondral layer and/or loose fragments of bone and cartilage in the joint c locking of the joint, and eventually osteoarthritis.

There are many ways to treat this problem starting with conservative (nonoperative) care. But when six months or mo care does not yield the desired results, then surgical treatment is considered. The surgeon may remove the fragments a area over with a special surgical shaver. This procedure is called debridement.

Other surgical options include reattachment of the fragments, microfracture (drilling tiny holes to stimulate healing), c (removing a wedge of bone to close up the hole). Most of these techniques don't work as well as hoped and there is a l osteoarthritis later.

That's why the surgeons from Germany who published this study are still pursuing a new approach called osteochondr transfer. They have studied and written about the short- and mid-term results of this treatment for a group of eight pati continuation of those studies with follow-up eight to 14 years after surgery.

Osteochondral autograft transfer (OAT) involves removing a plug of cartilage and bone from a healthy area (in this ca non-weight bearing area of the knee) and transferring it into the osteochondral lesion (i.e., hole in the surface of the sa elbow joint). The word "autograft" refers to the fact that the patient donates his or her own tissue for the procedure.

The group being studied and followed long-term consisted of four men and four women between the ages of 15 and 2 athletes engaged in competitive sports including volleyball, soccer, gymnastics, tennis, basketball, and skiing. All had months or more of conservative care. Failure of nonoperative care means despite all efforts, pain, decreased elbow mo function persisted.

As with the other surgical techniques to treat this problem, there is concern that degenerative changes will occur years painful and debilitating osteoarthritis. In this study, the patients were followed at regular intervals to measure and obse X-rays, MRIs, pain analysis, and the American Shoulder and Elbow Surgeons (ASES) score were used to assess cond damaged elbow joint, pain levels, range of motion, and function.

Results were considered excellent. MRIs showed good coverage of the defects with full incorporation of the graft. Sor were seen with mild bone edema (swelling) in one patient and bone cysts in two others. But the joint space was open a patient and only two patients had any signs (all mild) of osteoarthritis 10-years later.

All eight patients were pleased enough with the procedure they said they would have the same surgery again if given t were all able to return to sports without any limitations. The biggest problem reported was knee pain from the donor g wasn't enough to stop them from doing what they wanted to do in terms of daily activities or sports participation.

The surgeons concluded that the use of osteochondral autograft transplantation (OAT) is a successful treatment option osteochondral lesions of the elbow. The overall long-term results were better for this treatment than results reported fo approaches (e.g., microdrilling, debridement).

This treatment is also an option for patients who have tried other surgical treatments that failed to bring satisfying resu returning to full participation in sports was met. Those patients who changed sports activities or level of participation age or work requirements, not because of the previous elbow injury.

The authors make note of the fact that their study did not include baseball players engaged in repetitive throwing moti
osteochondral elbow lesions are fairly common in this group of athletes, a similar study is needed to see if the results
good in that patient population.

Reference: Stephan Vogt, MD, et al. Osteochondral Transplantation in the Elbow Leads to Good Clinical and Radiolo
Results. In The American Journal of Sports Medicine. December 2011. Vol. 39. No. 12. Pp. 2619-2625.