

# Iliac Crest Bone Harvesting May Leave Lasting Pain

Bone grafts, attaching bone to bone, are a frequently performed surgery in the United States. Many of them are autologous, where a piece of bone is taken from the person who is getting the bone graft (auto = self). When doctors take bone for an autologous graft, it is most often taken from the iliac crest, part of the pelvis. The problem is, however, that when an autologous graft is done, the patient ends up with two surgical sites - where the bone came from and where the bone was grafted. Each and every time someone has surgery, there is always a risk, so two surgical sites doubles the risk of complications after surgery.

The authors of this study have found that there are a wide range of complications that could occur from having bone removed from the iliac crest. These include pain, infection and injury to surrounding body tissue. As well, it's now being reported that some people are experiencing chronic pain from the site where the bone was removed, most often in patients who had spinal surgery. To investigate this further, this study looked at iliac crest graft harvest pain in patients who had an elective lower spine surgery. The surgery was for either spinal stenosis, spondylolisthesis, spondylosis, degenerative disc disease, scoliosis, or flatback syndrome.

The study began with 110 patients, six were unavailable a year later, so results are based on 104 patients (56 female). After the surgeries, the patients were evaluated at 6 weeks, 6 months and one year later. Pain was measured using the Visual Analog Scale, with zero meaning no pain and 100 being the absolute worst pain ever. Pain was evaluated at both the iliac crest harvest site and at the spine surgery site.

In general, at six weeks after surgery, the pain rating of the harvest site (the iliac crest) was about 22.7, decreasing to 15.9 at 6 months. At one year, it was a bit higher, at 16.1. For patients who had lumbar spinal stenosis (narrowing of the spinal canal), the pain ratings were 19.7, 17.5, and then 11.2.

Looking at the patients' lifestyles, it was found that patients who were work and receiving workman's compensation had higher levels of reported pain than those who were not receiving workman's compensation - almost 75 percent higher at six weeks and 400 percent higher at one year.

There were a lot of persistent symptoms at the harvest site at one year, with persistent pain being common (16.5 percent). Numbness at the site was also common (29.1 percent). When asked about daily activities, 15.1 percent said that the pain at the harvest site made it difficult to walk, 5.2 percent said they had difficulty working, 14.1 percent had a hard time doing household chores, 12.9 percent weren't able to participate fully in their recreational activities, 14.1 percent experienced sexual activity problems, and 5.9 percent said that they had problems with irritation from clothing.

The authors concluded that there remains a high rate of pain among people who undergo an iliac crest bone harvest, up to one year after the surgery. This pain can affect how a person is able to return to their previous levels of activity.

## Reference:

David H. Kim, MD, et al. Prospective study of iliac crest bone graft harvest site pain and morbidity. In *The Spine Journal*. No. 9. Pp. 886 to 892.