

NEW CARTILAGE TREATMENT IN SPAIN

through life most of us is going
to suffer from of **osteoarthritis.**



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Earlier the advice from a doctor would be to loose weight, analgesics or to be referred to an Orthopaedic Surgeon for a consultation.

Until now the Orthopaedic Surgeon have been able to treat early stages of osteoarthritis by arthroscopic treatment (key hole surgery) where we could trim the affected cartilage and do a so-called **housecleaning** which is a synonectomy (removal of scar tissue/irritated capsule tissue) and trim the menisci (a shock absorber) if they where damaged.

Further we had the possibility of doing a **microfracture treatment** to more severely affected cartilage/sever osteoarthritis/naked bone regenerating the cartilage in 4 of 5 cases if the cartilage defect was less than 4 cm². The microfracture treatment works by activating the patients own stemcells under the localized defect which then creates new cartilage. For bigger osteoarthritis areas the success rate was lower (about 2 out of 3) and eventually we could treat large cartilage defects surrounded by normal cartilage by doing autolog **cartilage transplantation**.

This being a cartilage biopsy taken from the patient arthroscopically, cultured in a laboratory and transplanted into the patient again after 4-6 weeks but the operation is done

by open surgery and with a success rate of 4 out 5 after a rehabilitation period of one year. Now there is a **new possibility**; the **TruFit CB plug**.

This plug consists of a scaffold which enables stem cells in the blood to attach to it support the regeneration of cartilage. This is different from a microfracture treatment that attempts to activate stem cells with the creation of small holes in the bone.

The plug is a porous, resorbable scaffold which means that it can regenerate the cartilage and bone and still resorbs in nine months.

The implants are structurally sound to effectively fill defects left by surgery, trauma or disease, and due to their porous nature provide conduits for tissue in growth.

The various sizes of plugs allow the implants to be press fit into osteochondrial defects, maintain space, and generate cartilage and bone repair.

Opposite the microfracture treatment where patients had to wait for 6-9 months before they had the result of the treatment, the patients now have immediately pain relief, since they can walk on the plugs after just 2-4 weeks, depending on the size of the area which has been repaired. When using these plugs all cartilage area which is damaged can be rebuild by the plugs regenerating cartilage within 6-9 months.

The advantage of the plugs compared to microfracture treatment is obvious; the plugs can be used for large areas with osteoarthritis, gives immediate pain relief, is a stable scaffold for the stemcells to immigrate into and start to produce cartilage which is not damaged in its early stages.

Further there is no side effects to the treatment concerning if the patient do not produce any cartilage in the scaffold, he/she can still have a total knee replacement since the scaffold is similar to bone.

The operation with TruFit plugs is done by key-hole surgery (arthroscopy). The patient will use crutches for 2-4 weeks, start working after 4-6 weeks, do low-impact sport after 4-6 weeks (golf and swimming) and high impact sport after 6 months (running, football, tennis and badminton).

The TruFit Plug



Nine (9) mm TruFit® CB Plug immediately post implantation in medial femoral condyle.



TruFit® CB Plug 21 months after implantation. Note complete plug integration and defect coverage with normal thickness hyaline-like cartilage. Small amount of fibrillation due to meniscal tear.