

# Extracorporeal Shockwave Therapy for Non-Unions and delayed Unions

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## Introduction:

Since December 1998, more than 1,200 non-unions were treated with shockwave therapy in the Trauma Centre Meidling with an electro hydraulic device (Ossatron, HMT). To compare different technologies from April 2004 till January 2005, 149 Patients with non-unions or delayed unions were treated with an electro magnetical device (Modulith, Storz Medical). Till February 2005, the results of 62 patients are available.

## Material and Methods:

The patients consisted of 25 (40%) female and 37 (60%) male with a mean age of 44,5 years (14-84). The mean age of the non-unions was 18,1 months. 31 (50%) were considered as delayed unions (3 to 6 months from the trauma or the last surgery concerning the bone) and 31 (50%) were older the 6 months (non-unions).

All treatments were performed under general or regional anaesthesia. Analogue energy flux densities and number of pulses to the electro hydraulic device were used. If necessary immobilisation with plaster cast or splints were applied.

## Results:

Out of 62 treated non-unions 48 (77%) achieved bony healing within 3 to 6 months after shockwave therapy. Compared to 593 (79%) bony fusions out of 755 treated non-unions with an electro hydraulic device no significant difference was observed.

Besides local swelling, petechial bleedings no adverse effects were reported in both collectives