

## PAPERS

### **A New Computerized Diagnostic and Surgical Planning Tool for the Surgery of the Wrist**

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#### **PURPOSE**

To demonstrate the usefulness of 3D reconstructions from CT and MRI data in the diagnosis, localization and surgical planning of difficult wrist problems.

#### **METHODS**

High quality wrist 3D images were obtained from 1mm CT slices. For this pilot study patients with known wrist fractures were selected. The pathology was displayed in a virtual environment, enabling the surgeon to interact with the image and examine the problem from various perspectives. In addition, measuring tools enabled precise recording of the amount of displacement of the fractures as well as the angulation of the fragments.

#### **RESULTS**

The information obtained from this technology proved to be superior to any of the existing methods for evaluating this problem. For difficult wrist problems it would be ideal to perform this kind of evaluation in order to decide on whether the patient should receive a surgical treatment or a more conservative treatment plan.

#### **BACK**