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## The SAFE System®: New Instrumentation and Methodology to Improve Follicular Unit Extraction (FUE)

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he technique of follicular unit extraction (FUE) and the FOX® procedure and test as described by Drs. Rassman et al.¹ has added an additional technique to the armamentarium of the hair transplant surgeons. However, the technique as currently described is technically

demanding and time-consuming, and there is the possibility of high rates of follicle transection. In the study by Rassman, 37.5% of patients were FOX® negative (not candidates for FUE) due to high

rates of follicle damage. Even for FOX® positive patients (candidates for the procedure), the rate of follicle transection may be close to 20%. With transection rates this high, the efficiency of hair transfer to the scalp is low when compared to traditional strip excision with microscopic dissection.

The technique, as is currently described, may consume the better part of the day to extract and implant 500 grafts. The reasons for the long procedure time have to do with the nature of

the procedure, extracting a single graft at a time, and the frequent tethering of the follicular units to the subcutaneous tissue requiring tedious dissection for removal. Some clinics have resorted to using non-physician staff members in an effort to increase the rate of graft extraction.

Newcomers to this technique have

found multiple sources of difficulty in performing FUE. In my own experience, the frequent lack of association between the exit angle of the hair and the subcutaneous course of the



Figure 1. Illustration of the SAFE System®

follicle is particularly problematic. When this is coupled with frequent changes in follicle direction, transection is frequent. Another problematic area in FUE is the tethering of the follicle to dermal components requiring either time consuming dissection or shearing of the follicles as extraction is attempted. All of these factors contribute to the relative lack of physicians performing FUE and account for the lack of research into the refinement,

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## The BIG One, Down Under



ISHRS 13<sup>th</sup> Annual Meeting Sydney, NSW, Australia August 24–28, 2005