

Rapid Efficient Quadrant Dentistry

Efficient-Rapid Procedures Using the PrepMaster® Disposable Air Abrasion System

The integration of new technology into your dental practice while increasing office revenue is one of the most important practice management issues facing every dental practitioner. As dentists, we are all aware of the tremendous advances in diagnostic and treatment modalities that enable us to provide better, more efficient, more esthetic, more durable restorations and all-around better generalized dental care to our patients. However, the successful integration of any new advancement is usually challenging.



Fig. 1- Dr. Steven Margolin

Recently I had the opportunity to integrate the new PrepMaster® Disposable Air Abrasion System into my practice. I am pleased to inform you that I was simply overwhelmed by the product and its overall impact on my dental practice. The PrepMaster® air abrasion system, developed and manufactured by Groman, Inc. of Florida, has proven to be one of the most efficient products I have ever tried.

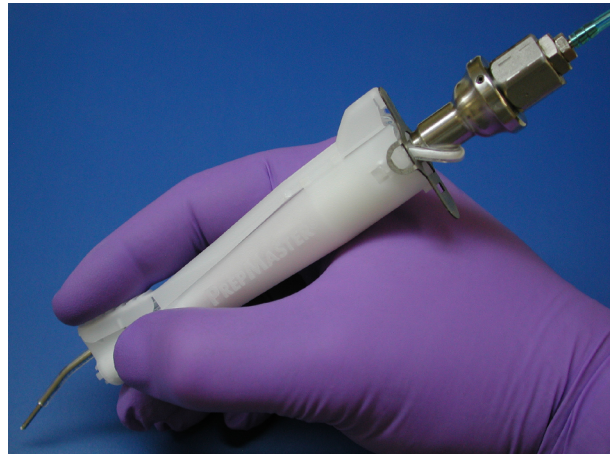


Fig 2. - PrepMaster® Disposable Instrument

As dentists, we are constantly searching for tools that enhance our production per patient visit, while providing the best care and uncompromising ethics. The PrepMaster® has accomplished this and much more in our office. The PrepMaster® system Starter Kit consists of: 1) a hook-up to the existing dental unit, thereby minimizing any outlay for additional compressors or plumbing, 2) disposable dental air-abrasion **pre-loaded** handpieces, 3) a complete guide to positioning and use, 4) a video to help guide the dentist through the learning curve for this technology.



Fig 3. - PrepMaster® Starter Kit

Those dentists who have tried previous air-abrasion systems will be pleasantly surprised. There are no separate compressors or in-operatory suction systems to purchase. Each PrepMaster[®] unit is disposable and a self-contained instrument that includes a fine aperture nozzle. The handpiece design mimics a standard air driven slow-speed motor in size. The handpiece is held in such a position as to allow the operator access to almost every area of the mouth, through the use of an incorporated standard swivel tip. The 27 microns aluminum oxide powder, which is pre-packaged into the handpiece to avoid reloading and contamination problems, is FDA approved for dental use. The PrepMaster[®] handpiece device is disposable. No sterilization or additional replacement parts costs are involved. The dentist merely attaches the PrepMaster[®] handpiece to the coupler from the dental unit and adjusts the coupler-mounted high/low flow-selector to perform the restoration procedure.

The crucial aspects of overspray and overpressure are addressed in the video portion of the above mentioned supplies. It is highly recommended that any dentist considering the implementation of this product into their daily patient treatment view the video or visit the website (www.GromanInc.com). After a relatively short learning curve -- I suggest practicing on a typodont or extracted teeth to accustom oneself with the feel of the handpiece and tip positioning -- the dentist should be capable of utilizing the technology immediately. Additionally, appropriate participation of the dental assistant is an important component in the reduction of overspray.

The procedure for preparation of teeth with air-abrasion is well documented and does not require an extensive explanation in this article. Suffice it to say that this practice technology can increase your revenues and production per patient within the first day of its arrival in the dental office.



Fig. 4 - PrepMaster[®] Orientation for Class V

As has been described by many practice management gurus, the most efficient way to provide dental care is through the use of quadrant dentistry. The PrepMaster[®] air-abrasion system allows rapid, efficient, multi-quadrant dentistry to be performed day after day with greater patient acceptance and cost effectiveness.

From the patients' point of view, the PrepMaster® seems to be the perfect solution for many age-old complaints. The PrepMaster® produces no noise, other than the "hiss" produced by the air pressure of the dental unit. There is no heat produced. Patients do not complain about the vibration caused by the bur impacting the tooth as the cavity preparation proceeds. One of the greatest advantages that I have found, however, is the almost non-existent use of dental local anesthetic. As of the writing of this article, I have given anesthesia to 2 patients while performing over 200 air-abrasion cavity preparations using the PrepMaster®.

Another advantage is my time savings. If I am not waiting for anesthesia to become profound, if I am starting the procedures as soon as the patient is seated and if the rubber dam is already in place, then my time savings is increased which allows me to see several more patients per day and increase office revenues. I have tabulated the following time-cost study for a typical multi-quadrant patient treatment. The total time for this procedure greet/seat to rinse/release is about 18 minutes. I used no anesthesia, no wait time, and recorded the actual times for verification. The net income of \$654 for these restorative procedures translates to an hourly production rate of \$1962. This rate is over 7 times higher than the acknowledged national average dentist production of \$255 per hour.

Procedure Type		Time	Fee** (Income)	Material (Expenses)
Air Abrasion Sequential Application	#2-MO	40 sec.	\$123.	\$10. – First PrepMaster®
	#11-MFD	15 sec.	\$138.	
	#13-MBD	15 sec.	\$138.	
	#18-B	15 sec.	\$98.	\$10. – Second PrepMaster®
	#28-O	22 sec.	\$98.	
	#29-O	17 sec.	\$98.	
Caries Seek	All done at same time	60 sec. for all teeth.		\$8 Total Supplies*
Bond & Adhesive	Apply to all teeth	30 sec. Total		
	Cure Sequentially	60 sec. Total		
Filling Placement	Place Sequentially	2 min. Total (15-20 sec./tooth)		
Finish	Sequentially	4 min. Total (40 sec./tooth)		
Smooth & Polish	Sequentially	3 min. Total (30 sec./tooth)		
Procedure Overhead		6.5 min.		
Sterilization Operative Supplies				\$6.
Assistant Time @\$15/Hr.				\$5.

Totals:	~20 min.	\$693	\$39
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* See appended Supply List.

** Fees were reimbursed to the patient by the insurance company.

One of the most satisfying experiences of utilizing the PrepMaster® in our office has been working with adolescent patients having a cavity preparation for the first time. After completing the PrepMaster® procedure and dismissing the patient, it is truly gratifying to have the patient tell their waiting parent that everything was great and there were no problems. That first restorative experience seems to have an unusually profound effect upon our perception of dentistry in later life.

The economics of any technology is an important issue in the determination of purchase and integration into the dental office's regimen. In this aspect the PrepMaster® excels. The technology is not new, but is, rather, improved. Costing approximately \$10 per pre-loaded handpiece, the PrepMaster® allows the dentist to maximize the return on investment. If, as has happened in my office, the patient requires multiple procedures in multiple quadrants, the dentist is faced with a dilemma. Does the dentist give anesthesia and complete one quadrant, reappointing for the other procedures? Does the dentist provide maxillary and mandibular procedures for one side and reappoint for the opposite side? Or does the dentist merely use the PrepMaster® air-abrasion system and provide all of the needed care without shots, without drills, without noise, heat, pain or other associated patient problems? Using the PrepMaster® is the obvious choice.



Fig. 5 - PrepMaster® in Intra-Oral Use

Materials used in this article are as follows:

Product Name	Manufacturer
PrepMaster®	Groman Inc.
Rubber Dam 5x5 green	Hygenic
Ivory Rubber Dam Clasps & Frame	Kulger
Solobond M	Voco
Grandio-Flo	Voco
Mini Polishing Points (Greenie/Brownie)	Shofu Dental Corp.

Dr. Margolin maintains an Esthetic and restorative dental practice in Margate Florida. He can be reached for questions and comments at 954-971-8800.

Groman Incorporated can be reached at 800-906-9298 and on the web at www.GromanInc.com