

## In Brief ...

Twelve staff and family members led by Dr. Jennifer Steigenga participated in the 5K run/walk for Ele's Place on July 23. The effort raised \$786 to benefit Ele's Place, a Lansing healing center for grieving children who've lost a parent or other loved one. For more information on Ele's Place call 517-482-1513.



Progressive Periodontics donated \$500.00 to the Manistique Humane Society in the name of Joyce Kazor, mother of Dr. Chris Kazor, who passed away in March. Thank you to all who also made memorial donations to the Humane Society in her name.



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# PerioPoints

An Insightful Publication of Progressive Periodontics P.C.

## Lasers In Periodontics: *Too Many Unanswered Questions.*

Dental lasers are being hailed across the country by laser manufacturers and distributors as the new, high tech method by which to treat periodontal disease. While there is plenty of evidence that lasers are effective and a safe replacement for

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or co-authored by Drs. Robert Gregg and Delwin McCarthy, founders of Millennium Dental Technologies and two are funded in part by Millennium Dental Technologies. For a more unbiased opinion we must look to the American Academy of Periodontology.

In October, 2002 the Journal of Periodontology published an Academy Report on Lasers in Periodontics developed under the direction of the Research, Science and Therapy Committee and approved by the Board of Trustees

of the American Academy of Periodontology. The report concluded that, "The decision to use a laser for periodontal surgery should be based on the proven benefits of hemostasis keeping in mind the claimed (but

One such case in point is the research offered on the website of Millennium Dental Technologies, Inc. dis-

tributor of the PerioLase® MVP7. At the top of the page they admit that, "Millennium Dental Technologies, Inc., ... does not currently possess FDA clearance for some or all of the claims made in these articles." Research consists of 12 articles, 10 of which are authored or co-authored by Drs. Robert Gregg and Delwin McCarthy, founders of Millennium Dental Technologies and two are funded in part by Millennium Dental Technologies. For a more unbiased opinion we must look to the American Academy of Periodontology.

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## Periodontal Disease Danger:

### *Pregnant Moms & Their Babies At Risk.*

The results of a new study published in the February, 2006 issue of Journal of Periodontology reinforces the findings of an earlier study released in April of '05: a positive association between periodontitis and pregnancy complications such as preeclampsia and low birth-weight babies.

The most recent study, published as "Periodontitis Is Associated With



Preeclampsia in Pregnant Women" concluded that, "Chronic periodontal disease and the presence of *P. gingivalis*, *T. forsythensis* and *E. corrodens* were significantly associated with preeclampsia in pregnant women."<sup>1</sup>

Preeclampsia is a pregnancy-specific disease that is one of the leading causes of maternal and fetal morbidity and mortality.

A case-control study was carried out at the School of Dentistry, University of Valle, in Cali, Colombia that included 130 preeclamptic and 243 non-preeclamptic women between 26 to 36 weeks of pregnancy. Sociodemographic data, obstetric risk factors,

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## Lasers In Periodontics

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undocumented) advantage of less postoperative pain with gingivectomy, frenectomy or other procedures. ... The public and general dental practitioners should realize that FDA safety clearance for laser treatments, consisting primarily of soft tissue removal, do not routinely apply to the treatment of most periodontal diseases."<sup>1</sup>

Fast forward to April, 2006. The Journal of Periodontology published findings of a new literature review commissioned by the American Academy of Periodontology. The report, based on a review of 120 research articles, concluded, "Simply put, there is insufficient evidence to suggest that any specific wavelength of laser is superior to the traditional modalities of therapy. Current evidence does suggest that the use of the Nd:YAG or Er:YAG wavelengths for treatment of chronic periodontitis may be equivalent to scaling and rootplaning (SRP) with respect to reduction in probing depth and subgingival bacterial populations. However, if gain in clinical attachment level is considered the gold standard for non-surgical therapy, then the evidence supporting laser mediated periodontal treatment over traditional therapy is minimal at best. Lastly, there is limited evidence suggesting that lasers used in an adjunctive capacity to SRP may provide some additional benefit."<sup>2</sup>

According to Dr. Charles Cobb, laser expert and author of the 2006 literature review paper, the topic of lasers has been condensed to a "to-use" or "not to-use" debate, but the issue is really more complicated than that.

"Each laser has a different wavelength," says Dr. Cobb. "These various wavelengths can accomplish different things. However, damage to periodontal tissues can result depending on the wavelength and power, and the periodontal procedure that the laser was used to perform."<sup>3</sup>

Dr. Cobb contends that while there appears to be no adverse outcomes when using an appropriate wavelength combined with minimal energy

density to accomplish the desired end result, the problem is one of multiple wavelengths and protocols.

"Subgingival periodontal therapy with a laser is currently focused on four different wavelengths and multiple protocols, each protocol testing a variety of laser parameters," says Dr. Cobb. "Thus, which combination is best—at this point we don't really know."<sup>3</sup>

As Periodontists, one of our biggest concerns with the use of lasers is loss of tactile sensitivity. With a scalpel, you can feel resistance. With a laser, you cannot. And when less than a millimeter can mean the difference between success and failure, tactile sensitivity is vital to serving our patients' best interest.

## Periodontal Disease Danger

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periodontal status, and subgingival microbial composition were determined in both groups. Preeclampsia was defined as blood pressure 140/90 mm Hg, and 2+ proteinuria, confirmed by 0.3 g proteinuria/24 hours of urine specimens. Controls were healthy pregnant women. Odds ratios (ORs) for periodontitis and subgingival microbiota compositions were calculated.

**Results:** A total of 83 out of 130 preeclamptic women (63.8%) and 89 out of 243 controls (36.6%) had chronic periodontitis (OR: 3.0; 95% confidence interval (CI): 1.91 to 4.87; P < 0.001). Clinical attachment loss increased in the case group (4.0 ± 0.10 mm) compared to the control group (3.0 ± 0.08 mm) (P < 0.001). The average newborn birth weight from preeclamptic mothers was 2.453 g, whereas in controls was 2.981 g (P < 0.001). Two red complex microorganisms, Porphyromonas gingivalis and Tannerella forsythensis, and the green complex microorganism Eikenella corrodens were more prevalent in the preeclamptic group than in controls (P < 0.01).

According to Dr. Adolfo Contreras from the School of Dentistry, University of Valle, Cali-Columbia, women in the preeclamptic group had more clinical attachment loss than the healthy women group.

"Mothers having preeclampsia showed greater periodontal destruction," said Contreras. "We found that chronic periodontitis was more prevalent in the preeclamptic group by almost 64 percent than the non-preeclamptic group at 36 percent."

The results also suggest that maternal chronic periodontal disease is a risk factor for low birthweight babies among preeclamptic mothers compared to those women who did not have preeclampsia.

**Conclusion:** Because of the preeclampsia risk and the fact that mothers with gum disease have six times greater risk of delivering preterm, low-birth-weight babies, dentists and OB-GYNs should strongly encourage pregnant women to include a periodontal evaluation as part of their prenatal care.

1) Journal of Periodontology 2006, Vol. 77, No. 2, Pages 182-188

2) J.A.D.A. Periodontal Infections & Preterm Birth, Vol. 132, July 2001 pg 875-880

Another concern is that laser devices for dental use do not go through the FDA Dental Products panel. As reported in the April/June, 2006 AAP News, "Therefore the routine protocol for proactively working with AAP members who serve on the FDA dental panel is a bit impaired."

At this time, Progressive Periodontics does not use lasers. We will reconsider our position at such time lasers for dental use gain FDA dental panel approval based on unbiased research. You can view the newly released AAP-commissioned literature review on the topic at [www.perio.org/resources-products/posppr3-5.html](http://www.perio.org/resources-products/posppr3-5.html).

1. J Periodontal 2002;73:1231-1239

2. J Periodontal 2006; 77: 545- 564

3. AAP News, 2006; April-June: 2

## Hygienist's Periodontal Study Club Kicks off '06/'07 Season

*Sharpen Your Instrument Sharpening Skills* is the topic of the first '06 meeting of the Lansing Area Dental Hygienist's Periodontal Study Club (LADHPSC) to be held Tuesday, September 19 from 6:00 p.m. to 7:30 p.m. at Progressive Periodontics, 2412 Lake Lansing Rd. Bring your favorite stones, instruments and skills to share. While snacks are usually provided and are encouraged and more than welcome to bring your dinner.

The LADHPSC is an informal discussion group that focuses on topics of interest to hygienists such as implants, different periodontal surgeries and smoking cessation programs to name a few. Our yearly discussion topic agenda will be decided at this first meeting, so we encourage you to attend and give us your input regarding topics of interest to you and other hygienists.

In other news, we are in the process of acquiring continuing education credits for these meetings.

If you enjoy sharing and learning with other interesting hygienists, please consider joining our group. We welcome new faces and fresh ideas.

For more information and to RSVP, please contact Susan Deming, R.D.H. at [skdeming@aol.com](mailto:skdeming@aol.com), H) 517-627-6730 C) 517-281-3460.



The Progressive Center for Continuing Education was built to help foster a new age of dental discovery, insight and understanding.

## Progressive Power Lunches

*Feed Your Body and Your Mind*

Progressive Periodontics is pleased to sponsor Progressive Power Lunches presented by Progressive's Patient Care Manager Jean Gilbert, C.D.A., R.D.A.

During this scheduled lunch session in your office, Jean brings lunch and answers your questions about everything from perio procedures and implants to how we manage patient care and how to better verbalize procedures to your patients.

Progressive Power Lunches are beneficial to everyone in your office from chairside assistants to office managers. You can get answers and gain insights about Progressive Periodontics in particular and Periodontics in general.

We are awaiting confirmation from the State of Michigan regarding continuing ed credits for these lunches.

To schedule a Progressive Power Lunch in your office call Jean Gilbert at 517-372-7347.

