

Powerful New Weapons in the Fight Against Periodontal Disease

Did you know...?

- 📄 Up to 80% of Americans over the age of 45 have some form of periodontal disease.
- 📄 Periodontal disease has been linked to many other chronic health conditions such as oral cancer, heart disease, stroke, osteoporosis, pre-term births, diabetes, and respiratory infections.
- 📄 Periodontal disease is now known to be primarily a systemic disease that simply manifests in the oral cavity.
- 📄 People with gum disease are twice as likely to have precancerous oral lesions, and have a more than four-fold risk of oral cancer.

Current Clinical Protocols:

- 📄 Up until now, our primary clinical weapons against periodontal disease have been SRP, antibiotics, and surgery.
- 📄 Yet we know from clinical research that SRP is ineffective up to 40% of the time.
- 📄 And when it does work, SRP reduces pocket depths by a little over 1mm on average.
- 📄 SRP is topical. It does nothing to address the systemic nature of periodontitis.
- 📄 Antibiotics help, but they are temporary and ineffective in dealing with long term recurrences.
- 📄 Surgery may be effective as a last resort, but it is painful and expensive.

New Adjunctive Therapy:

- 📄 Up to 3 times the PD reduction of SRP alone
- 📄 Dramatic reduction in Bleeding On Probing
- 📄 Substantial Gingival Index improvement
- 📄 Results in about 30 days
- 📄 Works systemically to support the body's natural immune system. Additional health benefits.

This new treatment protocol is supported by some of the latest scientific literature; so recent, in fact, that you may not have heard about it.

New Clinical Protocols:

- 📄 This new protocol is all natural, uses no synthetic chemicals, and is much more cost effective than other adjunctive therapies such as locally applied antibiotics (e.g. Arestin).
- 📄 The systemic effectiveness of this protocol can be validated simply and effectively in less than 5 minutes right there in your office.
- 📄 Doctors who have used this protocol for years report that their patient referrals to the periodontist have decreased by 90%!

Some things you should know:

- 📄 Much of the damage done to periodontal tissues and supporting bone structure is due to the emission of reactive oxygen species (ROS), or free radicals.
- 📄 The body's antioxidant defense system plays a crucial role in fighting inflammatory chronic diseases such as periodontal disease.
- 📄 Antioxidant deficiencies (both local and systemic) have recently been directly linked to periodontal disease.
- 📄 Supplementation with high grade antioxidants has been shown to improve periodontal pocket depths by up to 3 times vs. SRP alone.

Let's look at the research:

📄 201,658 published studies specifically looking at antioxidants, free radicals, and their relationship to human health and disease (1966-2003 Medline search, 2/4/2003)

📄 786,916 published studies on the effects of a wide range of vitamins, minerals, herbs, and other ingredients found in high-quality supplements (1966-2003 Medline search, 2/4/2003)

The cumulative weight of that research finally prevailed.

In June of 2002, the Medical Profession reversed itself . . .

In a dramatic reversal of clinical opinion published in the June 2002 issue of the prestigious *Journal of the American Medical Association*, the medical profession now recognizes the value of vitamin supplements:

“Suboptimal intake of some vitamins . . . is a risk factor for chronic diseases. Low levels of the antioxidant vitamins may increase risk for several chronic diseases. Most people do not consume an optimal amount of all vitamins by diet alone. It appears prudent for all adults to take vitamin supplements.”

“We recommend that all adults take a multivitamin daily.”

What research is there that has linked antioxidants, free radicals and periodontitis?

📄 Over 200 studies and clinical trials have clearly established the close relationship between antioxidants, free radicals and periodontal disease. No known studies have been found that contradict findings.

📄 Studies conducted around the world over the past 10 years

📄 Renowned institutions, university dental and medical schools, and private industry

The evidence mounts...

“There is an increasing body of evidence now available to implicate reactive oxygen species (free radicals) in the development of a variety of diseases. Periodontal disease is no exception.”

*Dr. R. J. Waddington
Dept. of Basic Dental Science
University of Wales
College of Medicine*

The largest research effort to date on this subject...

“Using data collected from over 9,862 subjects, Dr. Grossi’s team examined serum levels of antioxidant nutrients and their relationship to periodontal disease. Results showed that selenium has the strongest association with gum disease, with low levels increasing the risk by 13-fold. Low levels of vitamins A and C, a-carotene, and b-cryptoxanthin also increased the risk.”

*Article published Summer 1999
University of Buffalo
Archived at www.research.buffalo.edu*

The link is confirmed for the first time in 1999

“Oral biologists from the University of Buffalo’s School of Dental Medicine have shown for the first time that a diet low in antioxidant vitamins can increase the risk of developing gum disease. The findings have implications beyond gum disease, since bacteria from gum infections have been shown to play a role in heart disease, lung disease, and diabetes, in addition to destroying gum tissue and bone.”

*Article published Summer 1999
University of Buffalo
Archived at www.research.buffalo.edu*

Low antioxidant levels are a risk factor for periodontal disease

“What is clear is that low levels of most antioxidants are a risk factor for periodontal disease and infection. Free radicals are released as a result of bacteria clearance and killing. Periodontal tissue depends on natural antioxidants to overcome this oxidative stress and maintain homeostasis. When antioxidants are depleted, the ability of gum tissue to overcome oxidative stress, maintain normal tissue, and control the bacterial damage appears to be compromised.”

*Sara Grossi, DDS
Senior Research Scientist
University of Buffalo
School of Dentistry and Medicine*

People with periodontitis have low antioxidant levels

“People with chronic periodontitis have low levels of the protective antioxidant glutathione, reported researchers in the December 2002 issue of *Molecular Pathology*.”

“Researchers concluded that glutathione might be beneficial when used as a supplement to help prevent chronic periodontitis and might be able to assist in the healing process.”

JADA, Vol. 134, January 2003

Free radicals can destroy perio tissues and facilitate bone resorption

“In aggressive and chronic forms of periodontitis, the predominant inflammatory cells within the connective tissues appear to be functionally activated and exhibit increased production of free radicals. These molecules are capable of inducing periodontal tissue destruction, and are associated with osteoclastic bone resorption.”

*Professor I L C Chapple
Unit of Periodontology
School of Dentistry
University of Birmingham*

Low antioxidant levels are both local and systemic

“This is the first reported investigation of possible differences in GCF antioxidant capacity between periodontal health and disease. The results from this cross sectional study show that local, GCF total antioxidant capacity is significantly decreased in patients with periodontal disease. Furthermore, this local decrease was reflected systemically by lower mean antioxidant capacity in plasma from patients with periodontitis.”

*Professor I L C Chapple
Unit of Periodontology
School of Dentistry
University of Birmingham*

Antioxidant vitamins can counteract free radicals

“*Fusobacterium nucleatum* (FN) is associated with periodontal disease. FN strains stimulated neutrophils to produce a large amount of reactive oxygen species (ROS) or free radicals. ROS production and lipid peroxidation could be counteracted by Vitamin E.”

*Dr. Maryam Sheikhi, et al
Division of Clinical & Oral Bacteriology
Karolinska Institute
Sweden*

Catechin compounds from green tea kill *P. gingivalis*

“Green tea catechin showed a bactericidal effect against *P. gingivalis*. In the *in vivo* experiment, the pocket depth (PD) and proportion of BPR were markedly decreased. BPR produce tissue destructive enzymes such as collagenase and peptidase. These enzymes play a role in destroying the gingival tissues, in osteoclast breakdown, and in the progress and development of periodontitis.”

Dr. Masatomo Hirasawa, et al
Dept. of Microbiology
Nihon University School of Dentistry
Japan

Antioxidants Supplements Produce Dramatic Results

A 60-day, double-blind clinical study conducted at Loma Linda University in 2000 gave antioxidant vitamin supplements to subjects with various levels of periodontitis.

After just 30 days, the actual pocket depth (PD) reduction was:

<u>Baseline PD</u>	<u>PD Reduction</u>	<u>Percentage</u>
4mm	.934	23.3%
5mm	1.705	34.1%
6mm	2.807	46.8%
7mm	3.125	44.6%

Bleeding virtually stopped.
Gingival Index improved markedly.

Let's Review the Science:

- 📖 Periodontal disease is a systemic disease that manifests in the oral cavity.
- 📖 Periodontal disease has now been linked to oral cancer, heart disease, stroke, lung infections, pre-term and low birth weight babies, osteoporosis, and other chronic diseases.
- 📖 Free radicals play an important destructive role in the development and progress of periodontitis
- 📖 Antioxidants neutralize free radicals in body tissues
- 📖 Patients with periodontitis tend to have lower antioxidant capacity – both locally and systemically
- 📖 Patients with low levels of certain vitamins and minerals have up to a 13-fold greater risk of periodontitis
- 📖 Antioxidant vitamin supplements that work systemically to support the immune system may help fight the disease and aid in the healing process
- 📖 Certain natural antioxidant compounds actually kill the bacteria that play an important role in chronic periodontitis
- 📖 Rapid and dramatic improvements in periodontal tissues is possible through antioxidant vitamin supplementation

How does antioxidant supplementation compare with antibiotic therapy?

Locally Applied Antibiotics

- ☞ Arestin is a tetracycline derivative antibiotic product with a 90% market share for locally applied antibiotic (LAA) treatment of periodontal disease.
- ☞ It does not work systemically.
- ☞ Temporary effect (14-28 days)
- ☞ Typical patient cost is \$25 to \$30 per pocket.
- ☞ Multiple treatments per site may be necessary.

Antioxidants or Antibiotics?

Mean Pocket Reduction (mm) over 9-month clinical trial			
Baseline PD	≥5mm	≥6mm	≥7mm
SRP alone	1.08	1.05	0.98
SRP + Arestin	<u>1.32</u>	<u>1.46</u>	<u>1.99</u>
Antibiotic Impact	<u>0.24mm</u>	<u>0.41mm</u>	<u>1.01mm</u>
Actual Pocket Reduction (mm) in first 30 days of clinical trial			
Antioxidants w/out SRP	1.71mm	2.81mm	3.1mm
% Increase vs. SRP alone	<u>58.3%</u>	<u>167.6%</u>	<u>216.3%</u>

Data compiled from February 2003 issue of *Compendium*, a peer-reviewed dental industry journal, and Loma Linda University clinical trial press release dated April 2001.

Antioxidants or Antibiotics?

Side-by-side Comparison

	<u>Antibiotics</u>	<u>Antioxidants</u>
Reported Time Period	9 months	30 days
SRP	1 time	None
PD reduction (≥5mm)	1.32mm	1.71mm
Percentage over SRP alone	22.2%	58.3%
PD reduction (≥6mm)	1.46mm	2.81mm
Percentage over SRP alone	35.2%	167.6%
Mean no. of sites treated / pat.	30.7 (3x)	ALL
Total cost of treatment	<u>\$2,303 + SRP</u>	<u>\$50-75</u>

Data compiled from February 2003 issue of *Compendium*, a peer-reviewed dental industry journal, Loma Linda University clinical trial press release dated April 2001, and other sources.

If you were the patient, wouldn't you want to hear about a lower cost option that could be even more effective and also offer other health benefits?

Listen to what these patients, hygienists and doctors have to say after using natural antioxidant therapy.

Patient Testimonials

"My gums are healthier, and will remain healthier, and I intend to continue with the program indefinitely.... Seeing and feeling such dramatic results in such a short time is a real motivator to wanting to stick with the program. Never have I seen such dramatic results with previous programs.... I have been to many other dentists over the years...and the other doctors' programs never eliminated my bleeding, receding gums."

"I am very grateful that someone has discovered a way to eliminate the cause of gum disease, rather than simply waiting for the inevitable to occur and then treating it later."

--Ms. M. D Pelichy

"Thank you for correcting my gum disease that every Dentist before you never could accomplish."

--Mr. J. Demore

Doctor Testimonials

"How would I describe the results we've been getting? Phenomenal! When patients actually take their supplements, the program is 100% effective. Every dentist and hygienist needs to know about this."

--Dr. J. Lowe

"Treating over 500 patients from a bacterial and nutritional viewpoint has achieved better results after scaling / root planing on our periodontal patients. This is a very easy program to incorporate into an office. The patients that we helped control their periodontal disease (with no surgery or antibiotics) are very grateful, and tend to complete the rest of their dental work, including cosmetics. They refer more quality patients to our practice than any other group in our practice, thus keeping our practice very busy without doing much outside advertising."

--Dr. R. Schefdore