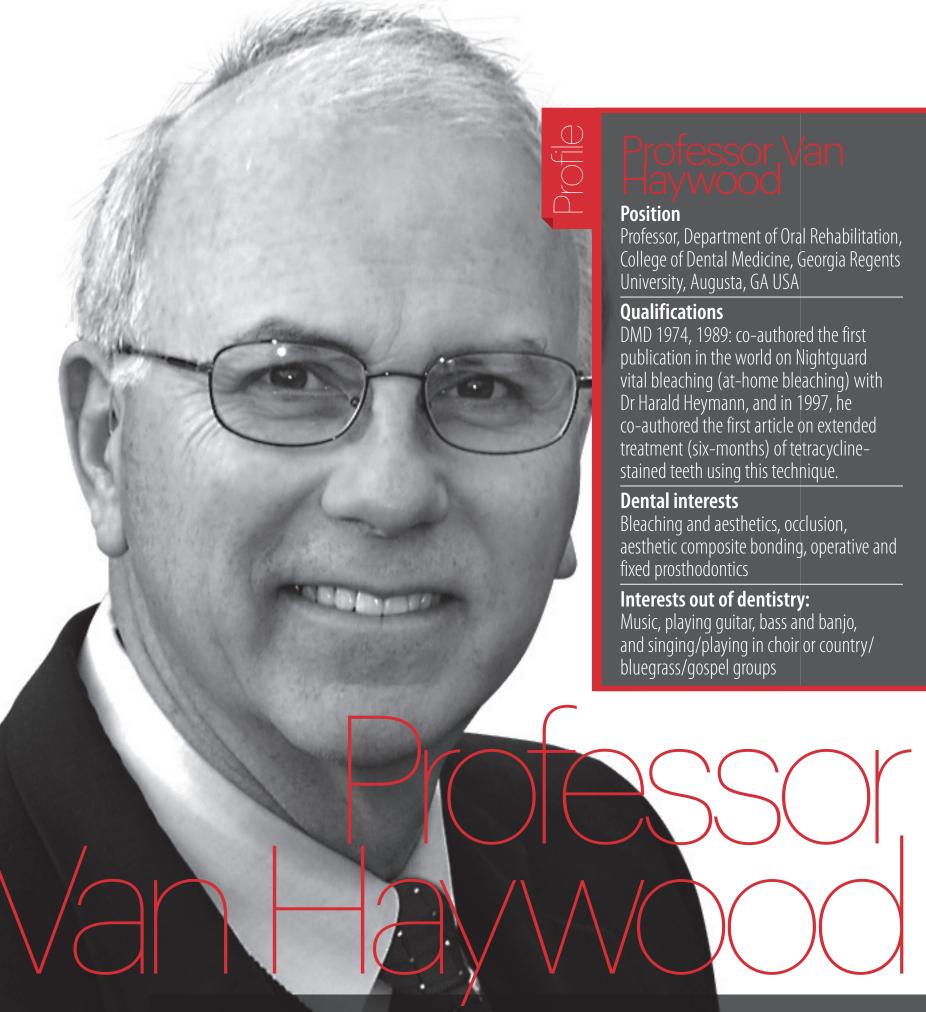
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PPDLEADERINDENTISTRY



As one of the pioneers in teeth bleaching and co-author of the first article in the world on tray whitening, we talk to the renowned **Professor Van Haywood** about his early work, his passion for the profession and keeping the faith





rofessor at the Department of Oral Rehabilitation in the School of Dentistry at the Medical College of Georgia Dr Van B. Haywood could be described as the godfather of teeth bleaching. It was as long ago as 1989, that Dr Haywood and his colleague Professor Harald Heymann coauthored the first article in the world on Nightguard vital bleaching (NGVB).

He has since completed over 145 publications on the NGVB technique and the topic of bleaching and aesthetics, including the first papers on treatment of bleaching sensitivity with potassium nitrate, direct thermoplastic tray fabrication, extended treatment of tetracycline stained teeth, and primary teeth bleaching. He has also lectured in over 30 countries and 30 US states. An impressive achievement by any standards.

BACKGROUND

Van was born in Macon, Georgia, and grew up in a small town called Dublin, Georgia. So what made him venture into the world of dentistry? 'I was certainly influenced by my father, a World War II Medic and dental hygienist, who returned home from the war and opened a dental laboratory, Haywood's Dental Lab in Dublin, Georgia,' answers Van. 'When I was born, he named me after two dentists for whom he worked. I did part-time work in his lab in high school, and made deliveries on my bicycle to the dental offices. While I did not start college to become a dentist, sometime in my senior year (after seeing the movie "Mash"), I felt that dentistry was my call in life and fitted my personality and talents. I applied and was accepted to dental school at the newly opened public dental school in Georgia.'

Upon graduation from dental school, Van took a faculty position in the operative department at the University of North Carolina School of Dentistry in Chapel Hill. 'After a few years, I returned to Augusta to open a private solo practice, where I practiced for seven years,' he recalls. 'I then returned to teaching at UNC Chapel Hill in the prosthodontic department, and later the operative department for 10 years. It was there that I co-authored the first article in the world on tray bleaching. I later accepted a position back in Augusta, GA at my alma mater in 1993, and have been teaching at Georgia Regents University in the Department of oral rehabilitation, which includes my areas of interest in fixed prosthodontics, occlusion, operative and aesthetics since then.

BLEACHING

Dr Van Haywood's initial faculty research interests were in resin bonded fixed partial dentures (Maryland Bridge) and porcelain veneers, 'as both are conservative techniques for aesthetic situations that change the lives of patients dramatically.' He then co-wrote the first article in the world on tray whitening, which is known as "Nightguard vital bleaching" (NGVB).

'I did not invent the NGVB technique, but learned about tray bleaching from some dentists in a North Carolina study club. The dentists suggested I test the tray bleaching technique and publish as well as do research if I felt this technique was a valid option,' he explains. 'Along with a colleague and friend, Dr Harald Heymann, we evaluated the technique and wrote the first article that was published in Quintessence International dental journal in 1989. We do not have a patent or any business interests, but wrote the article to share with the profession because NGVB was such a simple inexpensive technique to change the colour of teeth without having to prepare teeth for porcelain veneers or crowns. More details of this tooth bleaching discovery, which I traced to an orthodontist in Arkansas in 1969, are found on my website www.vanhaywood.







com under the biographical section in "the rest of the story", and have been published in several articles.'

When asked about how teeth whitening has changed in the last 10 years, Van answers: 'When we popularised NGVB in 1989, in-office bleaching was not very popular due to high costs, mixed results and labour-intensive treatment. Then, as aesthetics and bleaching became more accessible to the average patient and dentist through tray bleaching, there was a resurgence in the in-office bleaching technique. This resurgence was fuelled by television programmes as well as marketing by companies selling whitening products. In-office bleaching involved high concentrations of hydrogen peroxide for short application times, whereas our initial tray bleaching used a low concentration of carbamide peroxide, a milder concentration best applied overnight,' he says.

Other tray products were introduced with moderate concentrations of hydrogen peroxide designed for wear during the day. Carbamide peroxide is active for many hours, while hydrogen peroxide is only active for one hour or less. It takes more days to bleach with HP worn for a shorter time per day than it takes to bleach during nights bleaching with CP due to the longer wear time. Later, over-the-counter and internet products entered the market. Most recently has been the appearance the non-dental persons offering "kiosk" bleaching centres, which are considered the illegal practice of dentistry in many places. In addition to the changes in products and delivery systems, much confusion has occurred in information sources where many claims are made for products or techniques without any research to support the claims. There are many internet and television crazes being introduced to find a cheaper, simpler way to whiten teeth, but none have any science or research to support the marketing claims. Most of these products are a waste of money for the public, and may be harmful to the teeth in some instances. Having a proper dental examination is the starting point of selecting the proper treatment material and technique,' he adds.

RECENT ADVANCES

With over 25 years in the bleaching field and after much research and clinical experience, Van finds the first technique that he published is still the safest, most cost efficient and most efficacious technique available. 'When you consider cost (to the patient and to the dental office), safety (to the patient and to the dental office), and efficacy (how well it works and how long it lasts), then bleaching with 10% carbamide peroxide in a soft non-scalloped, no reservoir tray overnight, after a proper dental examination including radiographs, is my choice,' says Van. He regularly uses this bleaching technique with 10% carbamide peroxide in his own faculty practice. Although he says that other methods work to varying degrees, he stresses that they have limitations in the areas of cost, safety or efficacy. 'There have been improvements in the tray technique since our first article, such as using a softer tray, and having a thicker bleaching material, so the technique is better than originally published, but still the standard,' he says.

Does he think the demand for teeth whitening will continue? 'I believe the demand will continue to grow,' he answers. 'Consumer research has shown that whiter teeth are considered more attractive, and that people are considered more intelligent, more fun to be around and more successful when they have white teeth. Patients over 45 look 10 years younger with whiter teeth. People look their best and most natural when the colour of their teeth









matches the sclera of their eyes. Bleaching with 10% carbamide peroxide is the most researched product in the entire bleaching market. Since bleaching is changing the genetic colour of the teeth, then as long as people are born with discoloured teeth and see other celebrities on TV and in the media with whiter teeth, there will be a need for bleaching.'

SHARING THE KNOWLEDGE

Although Van enjoys carrying out quality dentistry, he enjoys sharing what he has learned even more, 'so others can perform quality dentistry better or easier'.

He says: 'I especially enjoy creating lecture presentations that carefully lead the dentist or student through the technique, in such a matter, that they can return to their patients and be successful in treatment. Sharing information also includes writing teaching articles, as well as performing research to determine the answer to the questions about a technique. When in private practice, I did not realise how important good research was until I was blessed to follow tray bleaching from the inception, to the current billion-dollar-a-year industry, and saw the ways both correct and incorrect information was shared, or how easily incorrect hypothesis became "facts" without proven research. Research enabled me to learn many of the truths about this bleaching technique, and allay the fears about harm to the patient or the teeth. However, I most enjoy the lecture format of teaching, and sharing as many practical tips as possible.'

LESSONS LEARNED

In hindsight, would he have done anything differently? 'I don't know that I would have done anything any differently. I think I had to go through the path I took to learn the lessons I needed to be where I am today. The first few years on UNC faculty under senior faculty resembled a post-graduate program in operative dentistry for me,' says Van. He explains that his years of private practice gave him more confidence to teach after experiencing private practice and fee-for-service patient care. Finally 10 more years teaching and doing research at UNC, and now over 20 years at GRU has allowed him to

have great interaction with excellent faculty in both places, where he has grown in his teaching and practice of dentistry, as well as staying current in continuing education.

And what lessons have been learned? 'I have learned to always try to do your best, and to continue to improve in your knowledge and skills. Stay true to your values and do the right thing for your patients,' he explains. 'As Dr Dick Tucker says: "First do the right thing; then do the thing right". There is always something you can learn from someone else, so reading journals, attending continuing education courses, and dialogue with colleagues has been essential to continue to grow professionally.'

Van emphasises that having good dental friends and mentors who can see things in you that are being counter-productive, that you might not see, has been helpful to him to grow and improve. 'It has been important to continually update my teaching techniques and knowledge base to stay relevant to each generation of dental students and dentists. Also I have learned to keep pursuing the dreams and call in my heart, bathing these plans and actions with prayer, and expecting that if I am called to do something, I will be equipped and guided in the task. My regret is that I made some poor lifestyle choices when younger, so I did not follow that advice sooner in my own life.'

Contact

Professor Van Haywood





To ask a question or comment on this article please send an email to: **PPD@fmc.co.uk**

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FAITH AND FUTURE

Van attributes his success to his supportive family and his faith. 'Having priorities and regular quiet time for prayer align my faith, family, friends, and profession in that order. I am blessed to have a wife who is very supportive, and three wonderful children, now grown and married,' he says. 'Because I have been asked to speak in many places, I made the decision that either I had to take a family member with me on the trip to spend time together, or I had to make enough honorarium to do something special with them when I return. Following that plan, almost all our holidays were where I was speaking. I look for skills and opportunities that have multiple benefits for the same amount of work, so if I learn something about teaching or computers at the dental school or office, I may employ that information in teaching at my church, or when teaching beginning guitar. This strategy uses my time more wisely in a "single task for multiple benefits" approach.'

When asked about his plans for the future, Van aims to carry on with his work and keep up with new innovations. 'I hope to use technology more in my teaching to reach a broader audience in the world and address the changing learning styles of the newer generations. I have had a website for many years, but want to do more interactive webinars or recorded lectures so there is less travel to connect with a broader audience. I hope to continue to lecture nationally and internationally at dental meetings, as well as lecture through the web and other online venues.'

'Finally, I hope to conduct the research in a clinical trial to support my longtime approach to treating dental caries in elderly patients and orthodontic patients by using 10% carbamide peroxide in a tray overnight to elevate the pH in the mouth, kill the bacteria that cause tooth decay, and clean the plaque from teeth. I think of that caries research as my final contribution to the profession, which started with tray bleaching, then sensitivity treatment and thermoplastic trays, and now caries control,' he says. 'Personally, I look forward to sharing life and experiences with my wife, and watching my grown children develop in their families, ministries and careers. At the time of this writing, our first grandchild is on the way, so from what I hear, that may change everything!' ■

Dr Haywood wrote a book on Nightguard vital bleaching with the idea of giving practicing dentists and hygienists a chairside method to show patients realistic expectations of what to expect bleaching might accomplish with their particular tooth discoloration. The book has multiple pictures, as well as information on tray techniques for various discolourations. The original hardback went out of print in 2014, but the digital version just became available on iBooks for \$38.99. This digital book is a great patient education tool, and works very well on iPads for chairside or treatment planning demonstrations. The book can be viewed at the following link: https://itunes.apple.com/us/book/tooth-whitening-indications/id687340399?mt=11

If you would like Dr Haywood's latest most referenced information on bleaching, it is the textbook chapter for bleaching in Summitt's 4th edition for Fundamentals of Operative Dentistry.

Haywood VB, DaCosta J, Berry TG. Chapter 16 "Natural Tooth Bleaching". Summitt's Fundamentals of Operative Dentistry: A Contemporary Approach. 4th Edition. 2013 Edited by TJ Hilton, JL Ferracane and JC Broome. Quintessence Publishing Co, Inc. Hanover Park, IL (2013)