

ORTHODONTIC PRODUCTS

PRACTICAL SOLUTIONS FOR

The Right Fit

Just like the smiles he works to create every day, Will A. Andrews, DDS, discovered that a fulfilling career as an orthodontist means having all the right pieces fit

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the RIGHT fit

BY MIKE FRATANTORO

PHOTOGRAPHY BY FRANK ROGOZIENSKI/WONDERFUL MACHINE

The term “optimal occlusion” is a fairly familiar concept in orthodontic circles. But where most orthodontists relate it only to aligning their patients’ teeth, for the last 20 years Will A. Andrews, DDS, has applied the concept to his successful orthodontic career—one that has aligned his interests and his work.

Andrews’ career goes beyond the traditional definition of an orthodontist. Although the main part of his San Diego-based practice remains his clinical work, Andrews spends a significant amount of time fitting in his related interests, which include research, teaching, and product design. He regards his practice, The Andrews Foundation for Orthodontic Education and Research, which he co-directs with his father, Lawrence F. Andrews, DDS, as “less like a business and more like a university.”

“We’ve modeled our practice after a teaching institute, where we’re interested in researching, writing, and continuous learning. We’re passionate about learning the science behind what we’re trying to do for our patients,” says Andrews, who is a diplomate of the American Board of Orthodontics and a member of the AAO, ADA, and the Edward H. Angle Society of Orthodontists. The multidisciplinary approach is what makes his practice unique, he says, but it is only possible due to the autonomy that the profession provides. In fact, the ability to be in charge of his career was one of the main appeals to Andrews when beginning a career in orthodontics: He could shape his practice into what he wanted it to be. “I was most interested in the aspect of being my own boss; that was probably the biggest appeal. It was a career that I could make my own decisions about, both day-to-day and long-term,” he says.

One of the important decisions Andrews has made is to go beyond clinical-only work and to devote meaningful time to research and teaching. The mental and physical rigors of these areas, as well as his clinical component, are what keep the profession interesting for him. “The thing I love about orthodontics is it’s a bit like solving puzzles,” Andrews says. “There’s a very intellectual piece to it—the diagnosis and treatment planning part of it—and then there’s the physical piece—putting the pieces together with your hands. It’s a good mixture of the mental and physical demands on your talents. And I like that.”

Andrews has built his career on these four major orthodontic pieces, and how they align into his successful practice owes a lot not only to his hard work but also to his main inspiration for becoming an orthodontist: his father, Lawrence.

The Beginning Pieces

When you’re the son of a successful and well-known orthodontist, it may not be surprising when you follow in your father’s footsteps. Andrews’ father, Lawrence, has practiced orthodontics since 1958 and is co-director of The Andrews Foundation. In his 50 plus-year career, Lawrence has written a textbook and published research articles that are still studied by orthodontists and orthodontic residents worldwide today, not to mention he has created orthodontic appliances that have been in production for just as long. “He’s my main inspiration,” Andrews says. “He’s really an incredible person and orthodontist. For him it’s all about the patient, and he’s willing to do whatever it takes to achieve a good result. It’s really inspiring to see.”

PRACTICE PROFILE

The Andrews Foundation for Orthodontic Education and Research

Founded: 1970

Location: San Diego

Office square footage: 3,000

Years in practice: 21

Education: DDS, UCLA School of Dentistry; Certificate in Orthodontics, Department of Orofacial Sciences at the UCSF School of Dentistry

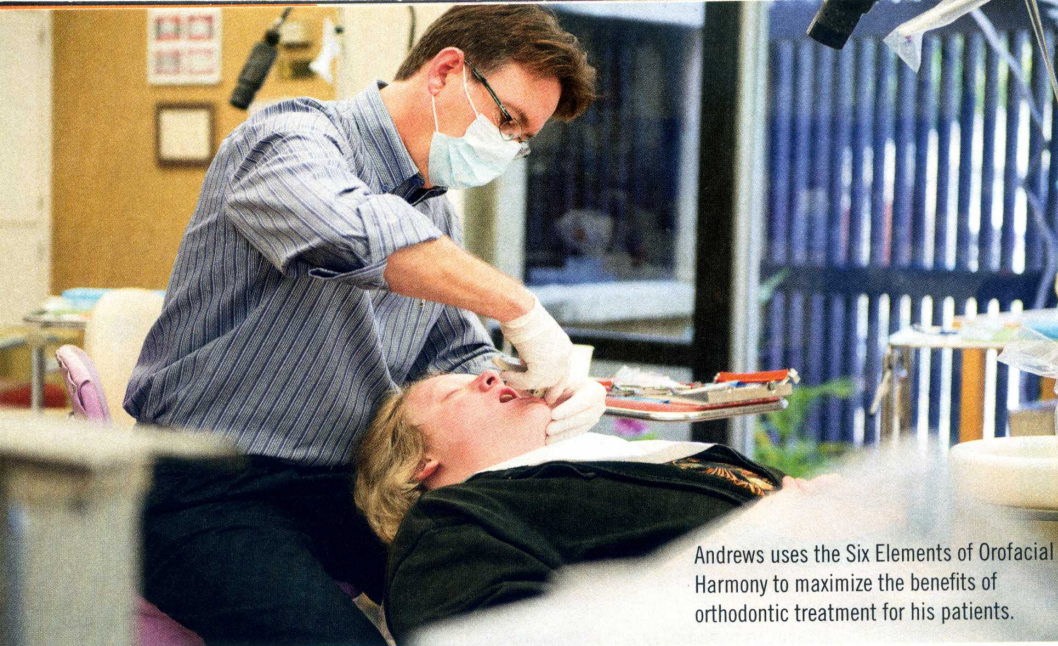
Average patients per day: 30-35

Days worked per week: M-F

Number of chairs: 4

Website: andrewsfoundation.org

Top three products used: Brackets from Ortho Organizers; Unitek Adhesives (Trans-bond); Golden Eagle Orthodontics Articulator



Andrews uses the Six Elements of Orofacial Harmony to maximize the benefits of orthodontic treatment for his patients.

Although Andrews credits his father as the biggest influence on his career choice, it was never a foregone conclusion that he would become an orthodontist. "It wasn't a career I really planned on. I wasn't aiming toward dentistry or orthodontics throughout my education," he says. Nonetheless, he attended dental school at UCLA, graduating in 1990; and completed his orthodontic residency at the University of California San Francisco (UCSF) in 1992. He then joined his father at The Andrews Foundation. "Honestly, my father was the biggest influence, the biggest reason I became an orthodontist, but it must have been subconscious because he never pressured me to go that route," he says. "When I was young, I didn't even know very much about what he did. But what I could see was that he really enjoyed it. He just loved it so much."

His father's love for orthodontics isn't the only thing Andrews picked up. His father has used the same multidiscipline career approach since he began practicing, scheduling patients one week, then taking a week off to work on research projects and to teach. "My father was able to spend a lot of time researching ways to improve treatment for his patients," Andrews says. "His work slowly developed into some well-known research projects. As a result, he began lecturing because

people wanted to hear more about his articles." Lawrence is still an active member in the foundation's clinical, research, teaching, and product design efforts, and Andrews says he still learns from him, every day.

"It's like having an expert in the room next door. If I have a patient experiencing something I haven't seen, chances are he's seen it before," Andrews says. "And even at this point in his career, he's always looking to improve. I tend to get set in my ways, but he's always looking to do it better."

The Clinical Piece

Andrews is first and foremost a clinical orthodontist. With four patient chairs, his practice normally treats 30 to 35 patients per day. Patients are scheduled Monday through Thursday, and Andrews dedicates his Friday hours to research. The office has four full-time staff and has multigenerational patients—that is, Andrews frequently treats the children and even some grandchildren of patients his father first treated years ago. "We're concerned most about the patient's health and appearance at the end of treatment. We want their results to look good, and we want them to function properly and be healthy," Andrews says.

One of the parts of his clinical work that he enjoys most is working with his

hands—something that has always appealed more to him than a profession like sales or finance, for example, which do not produce anything concrete. "I enjoy the intellectual part of my profession, but I like the idea of doing something physically with my hands. I like the fact that I can provide a service and produce something tangible that benefits the health of my patients," Andrews says.

In order to maximize the health benefits of orthodontic treatment, Andrews' clinical work focuses on six major orofacial elements that apply to each patient, called the Six Elements of Orofacial Harmony, a concept established by his father's research. "These are six things that orthodontists are directly responsible for when diagnosing their patients, and we have defined specific treatment goals for each of those six areas," he says. The elements include: 1) The arch (teeth, borders, and supporting tissues); 2) Anterior-posterior (AP) jaw positions; 3) Buccolingual (BL) jaw positions; 4) Jaw heights; 5) Chin prominence; and 6) Occlusion.

When meeting patients, Andrews examines each of these elements in order to diagnose and develop an overall treatment plan. Once the goals for treatment are determined, the actual treatment procedures can be employed, which Andrews calls "treatment rules." "The 'rules' are all of the

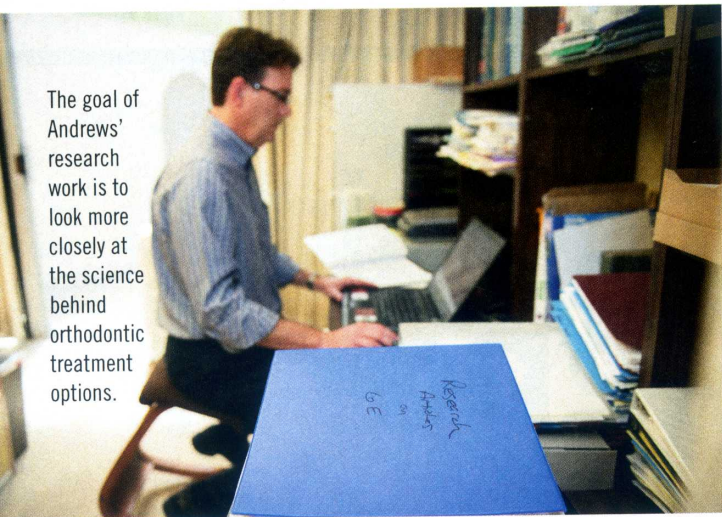
things you need to know as an orthodontist to be able to treat a patient," Andrews says. "The goal is important, but you also have to get there. You need to be able to treat: It might be braces, archwires, extracting premolars, or another method." The third and final step is what Andrews calls "classification." "Classification is just a way of describing the patient's condition, three-dimensionally, so that you can communicate the patient's problem to another orthodontist," he says.

All three steps—goals, rules, and classification—are referred to as The Andrews Foundation's Six Elements (6E) Orthodontic Philosophy. The concept was developed as a result of Andrews' and his father's combined research efforts and is the main focus of their teaching and lecturing work, as well.

"I enjoy the intellectual part of my profession, but I like the idea of doing something physically with my hands," Andrews says.



The goal of Andrews' research work is to look more closely at the science behind orthodontic treatment options.



The Research Piece

Like his father, Andrews regards himself as an orthodontic researcher, and he investigates scientifically in order to learn more about his profession. "I have a lot of research interests. My biggest problem is not having the time to do them all. But I'm always looking for a new and interesting research project," he says. To date, he has worked on several published studies involving the Six Elements of Orofacial Harmony. Andrews believes that the data and findings produced through this research help inform the clinical side of his practice specifically as related to treatment goals, which is something that orthodontics lacks, he says. "There's such a void in orthodontics in terms of scientific treatment goals," Andrews explains. "When I do research, I choose one of the six elements. There are an endless number of potential research projects you could do, but every single element, all six of them, need more research."

Because he believes there is much work to do in orthodontic research, Andrews encourages and supports others in their research pursuits, specifically orthodontic residency students. Andrews and his father frequently travel to give lectures on the 6E Orthodontic Philosophy, and at every stop they are approached by students eager to learn more and to collaborate with them on projects. "I'm currently advising three to five ongoing research projects that are

being done by university students. The students e-mail me their work and ask me to read, edit, and give them ideas," Andrews says, noting it's a process that he enjoys. "I like the process of research and investigation. It's exciting for me, and it's exciting to see others interested in it as well."

Although the clinical piece of his career is always the focus, Andrews believes his research is directly tied to the treatment of patients and the success of his work. "I'm proud of the research we're doing. It's all centered on what's best for the patient," Andrews says. "The bottom line is that we think our research provides the patient with a better outcome, and that gives us a great deal of personal satisfaction."

The Teaching Piece

The research of The Andrews Foundation is well-known and well-respected, and as a result Andrews and his father are frequently invited to speak to other orthodontists about their work. Their most recent trip was a lecture at the University of Toronto in March, but in the last 2 years Andrews has traveled to give lectures in China, Brazil, Mexico, Chile, Peru, Western and Eastern Europe, and many other international locations, as well as cities throughout the United States. "I really enjoy teaching. It's been a third component of my career that has kept it very interesting for me," says Andrews, who credits his mother, a former

schoolteacher, for giving him the "teaching bug." Although there is no orthodontic school in San Diego, Andrews is affiliated with UCSF as an assistant clinical professor and West Virginia University as an adjunct professor.

In addition to visiting lectures, The Andrews Foundation offers an ongoing series of courses in order to train current and future orthodontists, based on their research findings. The typical offering is a 2-day introductory seminar that focuses on the 6E Orthodontic Philosophy: treatment goals, rules, and classification. Of the three areas, Andrews says the courses most emphasize the goals. "What we teach has to do with treatment goals because this is where most orthodontists differ. I think the goals are the biggest things that separate one orthodontist from another, not talent" he says.

While the goals are the most important aspect, the courses and lectures also cover treatment rules and classification. Andrews says there is a great deal of variety in treatment methods, but "one rule isn't necessarily better than another. There is more than one way to get there." He adds, "The rules that we teach are ones that we think are most efficient, and efficiency is important for us from a business point of view and also for the patient. We don't want to waste the patient's time or lengthen their treatment."

"But we are very clear that orthodontists don't have to follow our treatment rules. They can decide how to best treat their patients. We teach the way we do it because we feel strongly about it being a practical and reasonable way of doing it."

The Product Piece

If clinical work, research, and teaching weren't enough, Andrews also fits in time for product design. Since the 1960s, Andrews' father, Lawrence, has used the research he's generated to inform

his clinical work, but it also led to a number of innovative orthodontic appliances. Lawrence's research on optimal occlusion led him to create the Straight-Wire Appliance, an orthodontic bracket that modified existing technology to better position teeth to optimal locations. After several companies initially passed on the proposed appliance, Lawrence began manufacturing the brackets himself. They became successful and gained Lawrence notoriety in the industry. "My father got involved in the manufacturing side of orthodontics early on, not really by choice, but he just felt like someone needed to make this thing and no one else wanted to."

Since then, Andrews has worked with his father to create new orthodontic products, including archwires and an articulator system. In addition, they work as consultants for Ortho Organizers and are helping the company create a new bracket design for the Andrews2 Appliance, which will be an updated version of Lawrence's original Straight-Wire Appliance.

"It's exciting," Andrews says, adding that the appliance is significant to him because it's one of the first commercial products to bear the Andrews name. "The product is only just coming out now, but we believe it will become more popular as people begin to use it."

Piecing it Together

Even though he believes there is still plenty of work to be done in his career, Andrews admits that his current work and the time he devotes to all four pieces of orthodontics are optimally aligned. He anticipates his career will look much the same in 5 to 10 years. "My prediction for the future is to continue my current work. I don't see any end in sight for my research or teaching. I'm really happy with what I'm doing right now, and I'd like that to continue," Andrews says.

However, one of the major projects on the horizon for Andrews and his father is the publication of an orthodontic textbook outlining the Six Elements (6E) Orthodontic Philosophy's treatment goals, rules, and classification. The book will build on much of what Andrews discusses during his lectures and courses, which normally provide only an introduction to the concept and the research behind it. He wants to create something substantial that could potentially be used in orthodontic residency programs in the United States and internationally.

"We introduce a lot of new concepts during our lectures, so when we finish, many doctors and students want to know where they can read more," Andrews says. "We always feel like we're leaving a void, and we wish that we had a book or something

substantial for them to read. That is one of the reasons we're motivated to write the textbook, which we hope will be published sometime this year."

The textbook addresses a critical need in orthodontics and an area where Andrews sees the greatest opportunity for a lasting impact in the profession. "When it comes to research, I think orthodontics, as a specialty, has a long way to go. I think there is very little about what we do that is truly scientific, at least in terms of treatment goals," Andrews says. "What we call traditional treatment goals, some have been around for a 100 years and not many of them have been well researched, but somebody's got to do it. So I look at it as my contribution to the specialty. Maybe none of what I'm doing will ever stand the test of time, but somebody's got to try."



Castings developed by Andrews and his father. Unlike standard castings, these feature a hinge.

In the meantime, Andrews plans to continue spending time with his wife and 14-year-old daughter, and with his longtime hobby of surfing, which he calls a "giant eraser for his brain" after a long week of clinical work and research. He also plans to continue working closely with his father, who he said has taught him everything about orthodontics and about life.

"I don't consider myself to be any more skilled than anybody

else, but what I've learned from my father is that the one thing that separates a great orthodontist from a good orthodontist is just simple persistence," Andrews says. "And that's true for everything in life. You just have to be willing to work hard and pay attention to details. My father has always done that, and I hope to follow his example." **OP**



See a slide show of Andrews and his practice with **Orthodontic Products'** interactive edition.