



Led by Dr. Marianna Evans, Infinity Dental **Specialists** stands at the forefront of treatment for problems associated with underdevelopment of the upper jaw and craniofacial structure.

In 2017, Marianna Evans, D.M.D., corresponded with James Nestor, an author and science journalist whose bylines have appeared in publications such as *Scientific American*, The Atlantic, and The New York Times. Nestor wanted to get the bottom of a mystery in which Dr. Evans had specialized expertise: why humans lost the ability to breathe correctly.

"Nestor basically went all over the world to understand more about breathing and facial development, and what happens to facial development when humans mouth-breathe rather than breathe through their nose," says Dr. Evans, a dental researcher and educator, as well as the founder of Infinity Dental Specialists, which has offices in Glen Mills and Newtown Square. "He wanted to see where the problem began and, more importantly, what can be done about it.'

Dr. Evans has a keen understanding of the problem and the solution. She and Kevin L. Boyd, D.D.S., a board-certified pediatric dentist from Chicago, have spent years researching the subtle but significant changes in humans' jaw craniofacial development over the past two centuries. Their research figured prominently in Nestor's 2020 bestselling book, Breath: The New Science of a Lost Art. The book describes her conversations with Nestor at the University of Pennsylvania Museum of Archaeology and Anthropology, in which she explained examples of "dysevolution," the concept that humans sometimes adopt and pass down traits that are detrimental to the species' health.

In particular, the doctors' research found that humans started to develop weaker jaws and a smaller, more slender skull at the beginning of the Industrial Revolution in the mid-19th century. Shifts in eating patterns, among other factors, weakened the jaw muscles and diminished the facial bones that support humans' capacity for healthy nose-breathing. Besides affecting jaw structure and the way teeth fit in the mouth, such evolutionary changes can hinder a person's airway, thereby causing other serious health problems in children, including obstructive sleep apnea and neurological issues such as attention deficit/hyperactivity disorder and lower IQ. If the root cause is not addressed, even more serious conditions, such as compromised cardiovascular health, can arise.

Dr. Evans's research has helped her better serve the patients in her practice. Infinity Dental Specialists treats a broad swath of conditions for patients of all ages, including children as young as two. Besides traditional orthodontics and periodontal treatment, the practice's areas of specialty include skeletal maxillary expansion, which is a nonsurgical treatment to widen the upper jaw and open the airway, as well as myofunctional therapy to adjust a person's posture, breathing habits, and muscle tone of the jaws. The practice also offers solutions for problems such as TMJ disorder, severe bruxism (teeth grinding), and compromised dentition.

"If a child's body was not developing properly, medical doctors would use daily shots of growth hormone therapy until the child stopped growing," says Dr. Evans, who is a dual specialist in orthodontics and periodontics. "In orthodontics, we now have targeted treatments just for the upper jaw, using customized 3D-printed devices to treat the growth problem. The concept works very well for children, but we also take a similar approach to help adults.

"People in need of help for these issues come to us from all across the country, even from other countries," she continues. "Before we were doing these procedures just to fix the bite and for aesthetic purposes; now we also use these treatments to address sleep and systemic issues. If someone has obstructive sleep apnea, we can help them so they do not have to live with a CPAP machine. Through early intervention, we can make it so younger patients do not have to deal with these systemic issues when they get older."

Dr. Evans continues to build on her knowledge to enhance patient care. For example, she has become an adjunct professor in the University of Pennsylvania Sleep Surgery Department. In addition, she has expanded her practice's clinical team with a key addition. Julián Conejo, D.D.S., a specialist in advanced aesthetic and implant dentistry, brings to the practice a wealth of knowledge and experience in the latest digital technologies to reconstruct patients' smiles. A former assistant professor of clinical restorative dentistry at Penn Dental Medicine, Dr. Conejo has lectured in more than 35 countries and authored more than 50 publications on topics such as aesthetic dentistry, dental implants, and full-mouth restorations.

"Dentistry continues to evolve, and my practice is happy to be at the forefront," Dr. Evans says. "Humans have undergone a lot of evolutionary changes since the Industrial Revolution, and we are deeply passionate about solving the breathing and orthodontic problems these evolutionary changes have caused so our patients can live their lives to the fullest."

Infinity Dental Specialists

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