

BEAUTY  
IS  
BONE  
DEEP.

*Learn How We Grow a Beautiful Face  
Plus – Why Doing So Sustains Health of the Body and Mind.*

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## **FOREWORD**

*Few people are broadcasting the degree of transformation now possible to child and adult faces through non-surgical methodologies and lifestyle adjustments. It is rewarding to witness fresh voices in the literary realm advocating for a paradigm shift in how individuals perceive facial beauty, approach selfcare and contribute to the evolution of healthcare within our society.*

-Dr Mike Mew, Founder of the London School of Orthotropics.



## INTRODUCTION

From the outset of my career, it was evident that online learners are deeply intrigued by the concept of facial transformation occurring non-invasively, even in adulthood. That the face can grow skeletally how you'd prefer it to, if you guide it with a better environment. As I weave together the disciplines of anthropology, facial mechanics, and orofacial myology to elucidate the intricate workings of the human craniofacial structure, their astonishment at these revelations not previously highlighted is palpable. Occasionally, inquiries about my credentials arise—am I an orthodontist, a doctor, or a naturopath? Without a medical or dental background, how do I challenge prevalent healthcare models and shed light on craniofacial health, beauty, and their profound impact on cellular well-being?

At this point in time, with medical and orthodontic curriculums so desperately stale in comparison to a rapidly unfolding scientific field of epigenetics, *face* orthodontics and bioenergetic quantum mechanics are the new healthcare models of the future, philosophies rooted in complete science, not old incomplete theories. We are at a pivotal point in scientific development. The rapidly growing field of epigenetics is begging to be seen and acknowledged by medical and dental faculties. Until new information is rewritten into university textbooks, we cannot rely on the authority of everyday orthodontists (pushing *tooth* orthodontics) or general medical practitioners (pushing pharmaceutical prescriptions) to receive utmost healthcare. It's not a stretch to say that traditional *tooth* orthodontics and pharmaceutical medicine are now commercial practices operating off outdated beliefs that facial and cellular symptoms, are the result of faulty human DNA. Because of the persistence of such scientifically unfounded paradigms, people line up to receive extraction and retraction orthodontics believing it's a legitimate solution with little downside. Similarly, the developed world views pharmaceutical drugs as the gold standard in medical management with little emphasis placed on accompanying lifelong *side effects*.

The bulk of the population are unaware that a growing number of epigenetic *face* orthodontists are arising around the world, armed with almost double the education of

a standard ortho (those limited to moving teeth within tight jaws or recommending patients off to surgery). Instead, these face orthodontists look at the body holistically as an interrelated community of functions, knowledge that leaves them unable to bear to potential damage of doing retractive orthodontics any longer. When I say *retractive* I mean the sort of orthodontics that focuses solely on teeth, ignoring the small jaw size and impaired respiration that created tooth problems, all the while practicing extractions and aligners right off the bat, worsening said small jaws and impaired respiration.

At the same time physicists and biological scientists are doing their best to push medicine into scientific modernity with cellular biology and quantum mechanics informed medicine, or what is also called *vibrational medicine*. These dedicated physicists and biologists with decades of invested scientific study, similarly, cannot continue to turn a blind eye to scientifically revelations that counter existing policy and point out the incompleteness of standard medical practices. A growing minority of doctors and professors leave behind the bad bits of what is taught in their graduate college curricula recognizing that it is now too outdated to truly help people heal at root cause level.

To answer the question about my qualifications, I never aspired to be an Author. I'm more of an obsessive learner and passionate *research assembler* than a writer. Having grown up familiar with airway, sleep and craniofacial growth limitations throughout my family tree, which I now realise are due to a combination of lifestyle factors and restrictive tongue ties inherited through my blood line, I eventually became a prime candidate for exploring the ins and outs of the human head. I'd graduated with a psychology major with Honors in my twenties, so I had a thorough understanding of the human condition from an anthropological and epigenetically grounded perspective. I'd spent years intensively focusing on what was going on *inside* the head, which was clearly shaped by environmental factors that govern the mind's plasticity. As luck would have it, I'd be driven to obsessively pursue additional scientific education into the elements shaping the *outside* of our head too. Aware that all of our neuronal cells proliferate with plasticity in response to experience, I intuited the rest of the body's cells behaved in a similar fashion, even those constituting the human face, must have plasticity too.

Following the completion of my psychological studies at university, a series of mishandled orthodontic interventions swiftly led to the severe alteration of my facial structure. This pivotal event seemed almost fateful, as though I was ushered straight from my psychology classes into the scientific realm of facial mechanics. It wouldn't be until many years later that I'd recognise the connection between the two seemingly unrelated fields. Facial development and mental health are absolutely connected, mediated by the size of the face's airway and thus, efficacy of oxygenation of the brain and organs. As I delved into the study of the face's architecture I grasped that the quantity and quality of airflow is predicting the quality of cognitive functioning, the quality of sleep, whether the body is fatigued and depressed, or whether the nervous system is left in an anxious state of *fight or flight* that doesn't turn off.

I had no idea at the outset that the face played *gatekeeper* for health and vitality. I'd only stepped foot into craniofacial functional medicine study out of vanity. I wanted to repair my beauty, that was all. As it turns out, attaining true natural beauty is akin to achieving holistic health. The profound deterioration of my facial appearance post-braces fuelled a deep-seated desire to repair my self-confidence primarily, it was only later that I'd become knowledgeable on the face's role in longevity. I dug deep into a metaphorical rabbit hole, immersing myself in self-directed online research. This immersive private study involved dissecting published journal articles reporting on facial mechanics, face morphology, jaw development, and airway dynamics, shedding light on the scientific findings related to facial aesthetics. Interestingly, the wealth of empirical data freely accessible within scientific literature, never sees the light of day in a physical or practical sense, in the operations of 95% of the world's orthodontic clinics.

At this very moment traditional dental and orthodontic curricula and dogma of universities teach that facial malocclusion (crooked teeth) is genetically pre-determined. Teaching a falsity that has never been based in empirical science. Quite the contrary in fact. Plentiful archaeological evidence demonstrate that the human craniofacial structure is shrinking with each generation. A measurable and widespread facial decline is occurring throughout modern industrialized societies. A decline so widespread and rapid, that it cannot be explained by gene mutations. Add to this the body of scientific understanding on bone remodelling and resorption, and it's easy to determine how rapid changes to environment are driving rapid facial bone declines. Most of said environmental change pertains to how modern humans prepare, process, store and consume food. To put it plainly, our way of feeding from the very first moments of life has been transformed. Nothing we eat today bares much mechanical loading on facial muscles and bones. And we've seen it on our faces, but never recognized it, since the outdated dental model blames face faults on genetics.

Here is a really great example of how bones respond when they do not encounter impact and stimulation. Imagine that your 37-year-old neighbor suffers a severe spinal cord injury which renders him wheelchair-bound. After six months, you would notice his legs have shrunk to half their original size due to not being used for weight bearing activities. You do not look at him and decide that his abrupt onset of bone weakness is due to genetic predisposition. Naturally, no. You understand that the absence of mechanical loading and underuse are causing his leg bones and muscles to deteriorate. Now apply this reasoning to the craniofacial structure of humans.

The human facial structure is two-thirds jaws and 1/3 forehead. All of the bones which comprise these three sections of the face are affected by the degree of forceful chewing the jaws withstand. The base of the eye sockets, cheekbones, nasal bridge, mouth roof, and upper teeth make up the maxilla, or top jaw. The mandible, which must rise and press into the maxillary teeth in order to pound and grind food, is the lower jaw. It has developed to regularly impact the maxilla with the assistance of the body's incredibly powerful buccinator muscles on either side of the jaws.

During the time of our ancestors, the primary sources of sustenance were raw wholefoods and frequently dehydrated meat, as dehydration was the only naturally accessible technique for preserving game meat from a huge carcass (unless you lived in

arctic conditions and could use ice). Food had to be torn at with front teeth as there was not cutlery to place food directly onto the rear molars. Additionally, there were no microwave ovens to melt food, slow cookers, juicers, or graters, nor blenders for liquifying fruits and vegetables.

Compare this to the modern diet of today where from infancy we are fed soft, mushy meals from feeding spouts attached to plastic pouches. After being chilled in refrigerators, foods are baked, fried, microwaved, pureed, whipped, juiced, or slow cooked. Nothing puts a lot of mechanical strain on the jaws, which are primarily used for regular straw-sucking, spoon-sipping, and "melt-in-your-mouth" snacking. Bone osteoblasts are not directed to form to produce the jaw size that is consistent with our gene's complete genetic code if bones do not receive the environmental signal—such as force from chewing on meals with a tough consistency.

Regrettably, contemporary medical thinkers who embrace or tolerate the genetic determinist view of illness and malocclusion seem to overlook anthropological perspectives. Tragically, in their pursuit of achieving aesthetically pleasing smiles, orthodontists have routinely employed retractive orthodontic techniques—such as tooth extractions to facilitate teeth alignment and braces to close gaps—for over a century. Unbeknownst to them, these practices inadvertently contribute to further diminishing patients' jaw sizes.

Unbeknownst to many, crooked teeth are not caused by a hereditary defect. The reason for malocclusion lies with the fast-evolving modern lifestyle unable to give the jaw bones enough activity to send signals to the bone cells to grow correctly. And what happens if our jaws don't grow to their full potential the way nature intended? Teeth overlap and exhibit peculiar behaviors. From here we can query, "And what happens if jaw stunting creates a high, vaulted mouth roof that restricts upper airflow and nasal breathing? The answer... We take on the body of a brand-new, contemporary human, dependent on oral respiration for survival. A maladaptive human who can oxygenate their body well.

A major contributor to oral breathing's toxicity is that without the nasal sinus's nitric oxide, which functions as a vasodilator to efficiently carry blood, oral breathing cannot support normal blood circulation, heart health or overall wellness. Ultimately, oral respiration's shallow, rapid rhythm is unable to draw oxygen deeply into the base of the lungs, leaving the body low in blood oxygen saturation and high in acidic carbon dioxide as a result.

Mainstream healthcare isn't bringing this issue to our attention primarily because mainstream orthodontics is hooked on the genetics paradigm of facial form, teaching that everyone's face is 100% genetically predetermined. As such, it's assumed that everyone's respiratory quality is pretty much the same. When, in reality there's a severe and widespread disturbance in the modern population's capacity to absorb its most essential life force, oxygen. This life sucking malfunction consequently dysregulates the nervous system, depriving oxygen starved cells of their full capacity to repair and proliferate properly, speeding up biological aging. Chronic stress (whether psychosocial or oxidative stress) is the major facilitator of chronic illnesses in their

many forms. This is driven by a chronically dysregulated nervous system sending oxygen away from vital organs toward the body's extremities. Blood away from the brains prefrontal cortex and hippocampus and towards the amygdala, a high volume of stress hormone cortisol flooding the environment of the cells, a heart that's always working too hard, sleep that's always too poor, toxins accumulating without proper detoxification processes, nutrients that aren't absorbed with suppressed digestion and inflammation that runs rife.

Recognizable biological scientist Professor Bruce Lipton has spent thirty years trying to eradicate disproven genetically predetermined theory from medical practice. Lipton reminds us that only 5% of deformity and disease is driven by genetics, while 95% is governed by epigenetics. Lipton's petri dish experiments on identical Cell DNA, demonstrate the sheer force environment has over development of cells. By placing identical cells in differing liquid culture mediums cells exhibits distinct behaviors and expressions, transforming into either fat tissue, muscle tissue, or bone, depending on the environment the cell receives. The cell membrane receives signals from the environment which determines how DNA sequences are read and expressed. DNA does not dictate development, DNA only contains genetic code to function as a growth blueprint—that is, if cells receive the proper signal to *read* the code. The environmental signal determines whether the proteins of the cell move and unwind the DNA helix, in determining how DNA is read. Cell DNA contains the one blueprint for the entire body, the environment the cells finds itself in determines how it grows and proliferates.

The Newtonian idea that physiological expression is driven by a fixed DNA rollout, is the impetus behind a modern orthodontic system that is infamous for flattening faces and narrowing dental arches, viewing procedures as an improvement upon a genetically flawed structure. When in fact, malocclusion is epigenetic in nature, a reflection of the wrong environment, and if we can change and improve the pressures of the environment, we can guide the face to grow in accordance with its full expression.

### *My Personal Recovery*

Years spent combing through scientific journals in pursuit of understanding facial anatomy, I unearthed a profound revelation: natural facial beauty serves not only as a cosmetic ideal but as a fundamental necessity for overall biological health. Add to this, that all human faces appear beautiful when they are fully grown skeletally. Just as clothing garments visually appeal when hung on a storefront manikin (instead of crumpled on the floor in a heap), human facial features display beautifully when positioned by a strong foundational bone structure with appropriate dimensions.

Over time, I discovered that the human face remains malleable into adulthood, with potential for bone remodeling, muscle training and fascia strengthening throughout life. Contrary to common practices focused on skin treatments, dental adjustments, nose jobs and jaw surgeries, it was evident that modern medicine & society at large are oblivious to full craniofacial development without the need for invasive surgeries and general anaesthesia. If this all sounds a bit too far-fetched, don't worry there are plenty of adult visuals demonstrating the successful effects of non-surgical craniofacial development to come in later chapters.



A select group of experts in orthotropic orthodontics and orofacial myology understand that bone and muscle guidance can grow adult and child jaws to genetic potential. Through the utilization of oral appliances and oral-facial muscle training, specialists guide jaw bones to grow optimally, influencing not only facial aesthetics but the capacity for one to attain overall health, thanks to the critical enhancement of naso-oral airway size.

The size and construction of the jaw is always affecting one's ability to inhale enough oxygen into the lungs and then heart and bloodstream, having consequential effects on brain function, nervous system regulation, emotion regulation, sleep quality, detoxification processes, and cellular repair. Development of the midface bone, which is the apparatus for nasal breathing, may just predict cellular and molecular processes, physical and cognitive health outcomes, and even spiritual and social aspects of one's life.

Endless scientific papers detail the damage ongoing low level oxidative stress plays in our health. Starving the brain, organs, and tissues of vital oxygen, suppresses the immune and digestive systems (causing inflammation and interfering with nutrient absorption) and reduces emotional vitality as the body is unable to remove itself from "fight or flight" nervous system dysregulation. These truths have been right under our noses for centuries (pun intended) as shrinking oral-nasal cavities rob mankind of health, perhaps not only physiologically but psychosocially too. We're witnessing widespread self-esteem issues, depression and anxiety, fuelling a multibillion-dollar plastic surgery industry servicing hordes of patients wishing to augment their face artificially in some way.

How have we been so blind to the structural demise of our faces, our crucial pathway for our most vital life force oxygen to enter our bodies? It all boils down to culture. A culture that is changing rapidly and altering our environment and a culture that for the most part has lacked the linguistics to describe and understand how faces functionally work and form. In the next couple of chapters, we will explore how exactly we got ourselves into this predicament, so we can get out.