

## The laws of physics have not changed

Forces generated by kinetic activity ultimately result in contact between moving and static objects. At that moment, force vectors are directed on/in the objects, and either the force must be dissipated within the objects or the objects must move. We learn these fundamentals of physics early and must apply them daily in practice. Clinical success is not possible unless we recognize and manage the force distribution patterns generated by oral function.

Technology can paint pictures of force distributions within teeth and jaws through such tools as strain gauges, finite element analysis, and photoelastic compounds. We have published a number of such articles recently in *Quintessence International*, to further emphasize the effects of forces on the masticatory system. Biomechanical considerations enable us to better diagnose, manage, and treat many oral conditions that present in our dental operatories.

The paper by Drs Magne and Douglas (page 5) is the latest contribution of this genre. It is important for many reasons. For me as a clinician, it offers extremely valuable insight into interrupting the progressive destructive restorative cycle: decay, small restoration, larger restoration, crown, root canal, post and core, tooth fracture, extraction ...

Their evidence-based conclusions affirm that properly executed adhesive restorative procedures in the form of porcelain veneers restore the ability of teeth to withstand forces in a manner similar to natural teeth. Many of us have grown to understand, at least empirically, that properly performed adhesive restorative dentistry can strengthen teeth. The emerging literature documents that observation and validates the rapidly broadening use of adhesive technology in clinical practice.

There is much more to it than that, however. The restorative phase is at the end of the clinical intervention and should *never* be completed until certain other considerations are adequately accomplished.

The key is diagnosis of *all* factors that brought the patient to your dental suite. There is simply no way to achieve and maintain oral health without recognizing and managing the causes of oral disease and disharmony. I often ask my patients if they would park a new car in a burning garage. We then discuss the wisdom (or lack thereof) of performing definitive restorative procedures in a diseased mouth.

I use the term "disease" quite broadly, to include emotional, motivational, economic, and social factors among the myriad issues to be managed prior to determining the final restorative plan for a patient. After the personal factors are dealt with, the final result of basic comprehensive dentistry must be optimal oral health with a stable occlusion wherein both functional and anatomic harmony are achieved. Drs Lorenzana and Hallmon (page 57) accomplished this in their treatment of subpontic osseous hyperplasia.

All these things can be achieved only after the doctor has determined what is causing and/or contributing to the oral status of the patient. With this information in hand, we can evaluate the influence of host resistance, time, and intensity on the cause-effect diagnosis formula.

So what is the "take-home" message here? It is both complex and simple. Complex because we may have to change the way we practice. Simple because we typically deal with only three basic issues of oral disease: genetics, bacteria, and stress.

Stress is the point of the Magne/Douglas article and of this editorial. At the end of the day, we must have accomplished both functional and anatomic harmony in order to provide our patients a balanced and stable occlusion. The entire universe obeys the laws of opposite and equal forces. If we don't provide our patients with what Dr Peter Dawson calls a "peaceful balance" among the elements of their stomatognathic systems, we are at risk of propagating the occlusal disharmonies that inevitably result in stress-related oral problems.

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