

# Patient Education

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Many of you have witnessed a dedicated assault during the past forty years on the subject of biomechanics. Numerous refinements and modifications of Dr. Edward H. Angle's initial edgewise arch mechanism have been made. Countless other appliance advances have been integrated with applied basic research and clinical study in an attempt to explain, understand, and harness tooth movement and facial growth. The orthodontist of today can select any one of a number of appliance systems to cope with his clinical problems, dependent to a large degree on his diagnostic choice.

Concurrent with appliance design improvements have been drastic improvements in dental materials. They are truly more superior, withstanding forces of occlusion and treatment for years instead of months. The use of prefabrication, laboratory facilities, and trained ancillary personnel in appliance construction have further amplified the effect of improvement in dental materials. By the use of prefabrication, for example, chairside appliance construction and maintenance time can be cut in half. The net result of all these changes is that the orthodontist is able to treat a case in less of *his* time today than was possible ten or even five years ago.

Offsetting this, however, is the rising demand for orthodontic services, including the unempathetic cries of the labor and health insurance movement for low-cost rapid treatment. Today's orthodontist is faced with more patients, more staff to supervise, and more correspondence and business relating to

his practice to manage. He receives more transfer patients (recent studies show average residency in the United States today is 2.7 years). He spends more time diagnosing, planning, and evaluating treatment away from the operatory chair.

Because of these changes in the nature of the practice of orthodontics, it is only natural that we should turn our attention to practice management and, more specifically, patient management. For only by an assault on practice and patient management problems can we achieve an orderly, organized approach to our problems of the 1960's and 70's. Let us examine that component of patient management dealing with parent and patient motivation and education.

Motivating parents and patients to achieve maximum cooperation during orthodontic treatment is not a new idea. Orthodontists for years have given of themselves at the chair to convey the essentials of good oral hygiene, proper elastic wear during treatment, and the need for wearing retention appliances. What is new today is that the time available for this orthodontist-parent and orthodontist-patient interplay has been drastically reduced. Simply stated, the problem today is—how do we motivate and educate parents and patients *more effectively in less time?*

As in the case of appliance evolution, we must turn to ancillary help and to improvements in materials, *educational* materials rather than *dental* materials.

The personal chairside time of the orthodontist needs to be supplemented by four other sources, all of which should be interrelated:

- (1) The assistant, receptionist, or hygienist.
- (2) Written instructions.

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(3) Visual aids.

(4) Audiovisual programming.

First, a well-trained assistant, familiar with parent and patient questions and needs, is our biggest asset. She can, for a large part, make up the time deficit in intrapersonal relationships alluded to earlier, provided she is properly trained and motivated herself. Second, written instructions are helpful in answering in a logical manner many of the questions often thought of after leaving the office. However, studies reveal that a large percentage of written instructions are left at all points between the dental chair and the bureau drawer at home. Third, visual aids play a great role in our consultations, whether it is a set of casts, a photograph, or a headfilm tracing of "before" and "after." Visual aids help us at the chair to justify the need for intermaxillary elastics or extraoral traction. They help to impress the need for regular hygiene so as not to end treatment with poor periodontal health or decalcifications. They help stress the importance of sensible nutrition, not just during treatment but for the patient's lifetime. Fourth, audiovisual programming presents the challenge of the future in parent and patient education. Several types of audiovisual presentations are possible.

A natural integration of visual aids with narration by the assistant results in the slide-narrative. An asset of the slide narrative is that it is highly personalized and individualized. Taping or recording the narrative yields the slide-tape or the film-strip record sequence. A further refinement consists of adding motion, hence the sound motion picture film. These audiovisual approaches have some unique features which are helpful in solving our aforementioned "time deficit." They are free from errors of omission, are unhurried, and can be personalized.

In the past the size of audiovisual equipment precluded chairside use of this important educational aid. This is no longer the case. All types can now be employed chairside as well as in specifically constructed audiovisual rooms. For chairside use, earphones are advised to screen outside distractions thereby increasing the captive audience effect.

Audiovisual education in the orthodontic office has unlimited possibilities. Think of the potential dental health material that your patients could be exposed to while waiting for appointments. This vehicle also serves as a splendid buffer during the busy hours of a practice.

Because of the age range of our patients and the variety of subject matters, suitable programming of audiovisual material is necessary. Language and story content must be aimed at specific age levels. Mixed-dentition patients, for example, require a different approach than permanent-dentition patients. Programs can be motivational, instructional, or both. They can be generalized or specific insofar as story content is concerned. Suitable programming should include such general topics as: orthodontics—its nature, oral hygiene, care of orthodontic appliances, mixed dentition treatment, retention treatment, extraoral and intraoral tractions, proper nutrition before and after treatment, maxillary expansion appliances, temporomandibular joint disturbances, cleft palate orthodontics, and adult orthodontics.

In general, six to eight minutes is an optimum length for a program. Earlier efforts included twenty to thirty minute programs, but children's attention spans are not capable of these longer programs, at least in the pre-high school age groups.

Application of audiovisual programming to the individual patient's needs

calls for careful consideration and sensitivity. Some patients require more preprogram repetition. Some require multiple viewings to grasp basic concepts that another patient may acquire in one viewing. In general, repetition and restatement of principles results in reinforcement. The behavioral school of thought in education states that proper performance is the real criterion of successful education, proof that learning has taken place. For example, in the case of oral hygiene procedures, a demonstration of proper principles by the patient at the conclusion of the session is essential. This is the correct framework for in-office toothbrushing, as a follow-up to patient education techniques, not as a stopgap in a schedule or as a convenience to the orthodontist.

Audiovisual programming has a reflex effect on office personnel. Repetition of principles to the patients is repetition to the office personnel as well. As principles of oral hygiene and knowledge of the "hows" and "whys" of specific treatment types and procedures becomes reinforced in our staffs' minds, vast changes take place in their ability to communicate with the patients on these subjects. In the office where any degree of employee turnover is present, the role of audiovisual programming becomes in reality a dual one—for the parents and patients, *and for the staff*. Using this technique for the staff also opens up an area all of its own, office procedure education. This method of on-job training with audiovisual media has been used successfully in industry for at least twenty years.

Before purchasing a slide projector, a movie projector, or any piece of audiovisual equipment for office use, avoid the mistake which so many in general dentistry have made in the last five years. Do *not* expect the machine to

replace you or your staff. Buying the equipment and / or programs and "plugging" them into your office is really the backwards way of solving your patient education needs. Instead, evaluate your present patient education techniques. Are you satisfied with the level of toothbrushing, elastic wear, and headgear wear in your practice? Are your retention patients giving one hundred per cent effort with retainers? Are your parents fully informed of the real reasons behind orthodontic therapy? These are but a few of many questions you can ask yourself and your staff. From your answers you can establish a *priority* for areas in which to improve. Take them one at a time. Decide which types of audiovisual equipment you and your staff like the best. Part of this, of course, will be related to its adaptability to your office routine and confines. View all existing programs related to your priority-rated topics and, if nothing satisfies you, consider constructing your own (either individually or as a study group project). Remember that the successful patient and parent education program is a wedding of personnel, written instructions, visual aids and audiovisual programs. They are interdependent. Above all else, audio visual programs and equipment are not foolproof. They require care and maintenance and, therefore, you must be familiar with your programs and equipment. For successful experiences with patient education, *you* must be the supervisor ultimately, just as with all other phases of your practice.

Accept the challenge of the new frontier in orthodontics! A more orderly, effective plan of patient education is on the horizon, it takes only your effort to reach it.

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in his memory . . .*

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