From Charles Lindbergh’s time until now, orthodontic technology has changed almost as dramatically as aviation technology, yet many of us are resistant to capitalize on a key aspect of what technology has to offer — extending treatment intervals beyond the traditional monthly visit. While some doctors with whom I have spoken have pushed treatment intervals to 6 or 8 weeks, they are reluctant to capitalize on the full capabilities of the new technologies. They purchase all the advanced products but still use those products in the same old ways.

The number one enemy to efficient, biologically compatible tooth movement in clinical orthodontics is the way archwires are tied. If we can decrease friction and lower force levels, we can change the dynamics of tooth movement.

I have come to believe that practice enhancement can be boiled down to one word. Without this one word working in your practice, the odds are against long-term prosperity. And that word is HONOR.

Every contact is a chance to meet an expectation, exceed an expectation or fail to meet an expectation. Our lowest acceptable standard is to meet a patient’s expectation.

I am thoroughly convinced that the most successful practices in the new millennium will be, first and foremost, obsessed with aesthetics.

If you take only one idea from this article, let it be this: make bonding and precision placement of brackets your number one doctor-time priority.

What separates the original patented “A” Company Straight-Wire Appliance system from all other bracket systems is the ability to consistently deliver The Look of Natural Beauty™, which is what patients want and what orthodontists want to provide for their patients.

No longer will you be isolated in your practice; the World will be one giant group practice that will allow the exchange of ideas and treatment methods on a daily basis.

The following are notable quotes taken from back issues of CI. The authors are identified at the bottom of the page.

I. If you take only one idea from this article, let it be this: make bonding and precision placement of brackets your number one doctor-time priority.

II. Every contact is a chance to meet an expectation, exceed an expectation or fail to meet an expectation. Our lowest acceptable standard is to meet a patient’s expectation.

III. I have come to believe that practice enhancement can be boiled down to one word. Without this one word working in your practice, the odds are against long-term prosperity. And that word is HONOR.

IV. I am thoroughly convinced that the most successful practices in the new millennium will be, first and foremost, obsessed with aesthetics.

V. Once we started using non-compliance appliances in our office, previously uncooperative patients developed an entirely new attitude. Now the atmosphere in our office is very positive....

VI. Treatment protocols are the fundamental building blocks for effective staff and patient education, communication and scheduling.

VII. The number one enemy to efficient, biologically compatible tooth movement in clinical orthodontics is the way archwires are tied. If we can decrease friction and lower force levels, we can change the dynamics of tooth movement.

VIII. From Charles Lindbergh’s time until now, orthodontic technology has changed almost as dramatically as aviation technology, yet many of us are resistant to capitalize on a key aspect of what technology has to offer — extending treatment intervals beyond the traditional monthly visit. While some doctors with whom I have spoken have pushed treatment intervals to 6 or 8 weeks, they are reluctant to capitalize on the full capabilities of the new technologies. They purchase all the advanced products but still use those products in the same old ways.

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X. No longer will you be isolated in your practice; the World will be one giant group practice that will allow the exchange of ideas and treatment methods on a daily basis.
As the new editor of *Clinical Impressions* (*CI*), I found myself with quite an issue to prepare. Yes, believe it or not, this is the 10th Anniversary Edition of *Clinical Impressions* (1992-2001). As you can see from our front cover, quite a few faces in the orthodontic profession have adorned our covers over the past ten years. It is a tradition we plan to continue.

In celebration of this milestone, we hope you will enjoy the new look of *CI*. From the masthead . . . to the colors . . . to the typefaces . . . and design elements, we have taken a fresh approach to our pages that we think will invite you to read *CI* for many years to come.

Looking back, Floyd Pickrell, then President of Ormco, said, “The primary focus of *Clinical Impressions* will be on articles by leading practitioners that will enable you to incorporate products or appliance systems into your practice more easily, with superior results and broader application.” And indeed, when *Clinical Impressions* was introduced in 1992 by Henry Hulan, he used his clinical and professional understanding of the specialty to institute what has become a highly regarded publication in the field of orthodontics. Barbara Brunner, Manager Corporate Communications, said of Henry upon his retirement in 1999, “He has been its master, shaping its course, yet ensuring that each doctor kept his own voice.”

*CI* has been built on a firm foundation of presenting articles covering a variety of subjects pertinent to your practice from clinical to practice management to aesthetics to new technology and so on. We hope you not only enjoy this tenth anniversary issue but also find it to be useful in your practice as we continue the great Ormco tradition.

Jan DeCarlo, *CI* Editor
Every once in a while I am lulled into believing that orthodontics has finally reached its zenith. I get the orthodontic blues and a vague sense that there aren’t changes on the horizon that can restore my professional inertia. Then wham, out of the blue, a new technology or system comes along that creates new excitement and stokes the fires of my passion for this specialty. It never ceases to amaze me how inevitably these changes seem to occur. Like clockwork, innovation becomes evolution.

Just think about the changes we’ve experienced in the last decade. Ten years ago I was seeing patients on four-week intervals and using fairly complex mechanics. My days were hectic and packed with patients (I saw anywhere from 85 to 105 patients a day), functional appliances were an enigma, and I didn’t know how to turn on the office computer. Now, noncompliance treatment mechanics drive our practice, we see 50 to 55 patients a day on six- to eight-week intervals and as far as I can tell, I’m doing a better overall job as a wirebender (or preformed wire package opener). I still don’t know how to turn on the office computer.

The first question a prospective patient asks is not “Can you straighten my teeth?” it’s “Do you have colors?” Lingual orthodontics has been born and reborn, self-ligating brackets have gone through the Damon SL and Damon System 2 iterations, clear brackets have been cool, then uncool, then cool again. We not only wet-field bond with Ortho Solo, idealize with Orthos, power whiten with BriteFinish, and retain with Bond-A-Braid, we also do our level best to give everybody the toothy nonextraction smile of Farah Fawcett…or Cameron Diaz, if you’re too young to remember the original Charlie’s Angels.

Clinical Impressions has been chronicling these changes for a full ten years now. It was born as the brainchild of Ormco under the steady hand of one of orthodontics’ publishing icons, Henry Hulan. It was designed to be a voice for pragmatic orthodontists. Not overly fussy or scientific, just the impressions of astute clinicians fighting in the trenches. Part of orthodontists’ genetic code, I suspect, includes finding resources that make their complex lives a little less so. Clinical Impressions fits that bill perfectly. It is easy to read, easy on the eyes, and easy to understand.

I remember the excitement of being asked to be the poster child on the cover of the first issue. I was especially honored because I knew the potential of such a publication and its probable impact on the profession. I, along with many of my esteemed colleagues, have been so honored in CI. See Mom, I finally got my 15 minutes of fame! Some say the golden age of orthodontics is just beginning. I say that it’s always been there – just getting better.

Happy birthday, Clinical Impressions, on your tenth anniversary. Many, many more to come.
Wire selection has become a significant challenge for orthodontists who want to avail themselves of the most efficient and comfortable technologies. How often do you find yourself selecting a wire and then second-guessing the choice? There are different archwire options for leveling, space closing, opening bites and closing bites. Some are made of steel and some of titanium alloys. There are wires in any number of ideal arch forms, depending on the technique you follow. Some are braided, some are straight and some wires are twisted. We even have wires that act differently depending on the temperature at which they become active.

With all of these choices, it’s no wonder orthodontists wrestle with wire selection on a daily basis. We’ve come a long way since our predecessors battled with their solid gold “E” arches, but that doesn’t mean we have it all figured out.

Technological advances in wire development allow us to treat patients with even greater ease and comfort. We want to do what’s best but sometimes the prospect of change is daunting. Have you ever asked the question, “How do I transition to a new family of wires?” Or maybe, “What’s the equivalent in another alloy to the wire I’m using now?” Unfortunately, there are no simple answers, but there are certain generalities that can be suggested for some typical situations. The metallurgical mayhem caused by wire selection in the orthodontic office requires organization.

I have created a table to help simplify the confusion associated with wire selection. It tracks the use of popular archwire sequences from the 1970s to the present according to degree of crowding and treatment phase. They represent the cutting edge of wire progression for a typical .018 slot size in each decade.

Sensible wire progression offers the greatest efficiency. The intent of today’s wire progression philosophy is, in most cases, to place increasingly more rigid and larger rectangular wires in the bracket as the case progresses. The numbers in parentheses after each wire in the chart indicate relative wire stiffness as stated in the Ormco Wire Stiffness Comparison Guide1. To determine an appropriate wire progression, the clinician should evaluate not only the

<table>
<thead>
<tr>
<th>Degree of Crowding</th>
<th>Initial Phase</th>
<th>Intermediate Phase</th>
<th>Finishing Phase</th>
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<tr>
<td>Severe</td>
<td>.012 Steel (80)</td>
<td>.016 x .016 Steel (425)</td>
<td>.017 x .025 Steel* (1750)</td>
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<tr>
<td></td>
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<td></td>
<td>.016 Steel (250)</td>
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<tr>
<td>Severe</td>
<td>.014 Ni-Ti* (25)</td>
<td>.017 x .025 Ni-Ti (225)</td>
<td>.017 x .025 Steel* (1750)</td>
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<tr>
<td></td>
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<td></td>
<td>.016 x .016 Ni-Ti (75)</td>
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<td></td>
<td>.017 x .025 D-Rect (125)</td>
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</tr>
<tr>
<td>Severe</td>
<td>.016 Copper Ni-Ti 35º (25)</td>
<td>.017 x .025 Ni-Ti (225)</td>
<td>.017 x .025 Steel* (1750)</td>
</tr>
<tr>
<td></td>
<td>.016 x .022 Copper Ni-Ti 35º (100)</td>
<td>.017 x .025 TMA* (725)</td>
<td>.017 x .025 Steel* (1750)</td>
</tr>
<tr>
<td>Moderate</td>
<td>.014 Steel (150)</td>
<td>.016 x .016 Steel (425)</td>
<td>.017 x .025 Steel* (1750)</td>
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<tr>
<td></td>
<td>.016 Steel (250)</td>
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<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>.016 Ni-Ti (40)</td>
<td>.017 x .025 TMA* (725)</td>
<td>.017 x .025 Steel* (1750)</td>
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<tr>
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</tr>
</tbody>
</table>

1970s | 1980s | 2000 | *Can add reverse curve

1. Ormco Wire Stiffness Comparison Guide.
cross section of the wire but also the rigidity of the alloy relative to stainless steel. For example, it is usually counterproductive to place an .016 x .016 Ni-Ti wire with a stiffness value of 75 after an .014 steel wire with a relative stiffness of less than 150. It will often only reverse progress and prolong the patient’s treatment.

In recent years, wire options have grown to include the Copper Ni-Ti family of wires. They have become extremely popular, particularly over the past five years, because they deliver lighter, more consistent forces and are active longer than any other wire. Copper Ni-Ti offers advantages for both the patient and your practice. These wires are designed to be in the patient’s mouth for extended periods of time, so you use fewer of them and change less frequently. You can carry a less-detailed inventory of archwires while reducing the number of appointments in the patient’s treatment plan. As technology advances, there will be more developments in the arsenal of wires. I find that for comfort and overall efficiency, the Copper Ni-Ti family of wires is the most appropriate choice available.

References:
1. Ormco Orthodontic Product Catalog, Section 6, Page 2 or refer to the Web site at www.ormco.com.

**Dr. M. Alan Bagden**, currently practicing in Springfield, Virginia, received his dental medicine degree from the University of Pennsylvania School of Dental Medicine and his orthodontic training from the University of Maryland. A diplomate of the American Board of Orthodontics and a fellow of the American College of Dentists, Dr. Bagden is a past president of the Northern Virginia Dental Society and is former president of the Virginia Association of Orthodontists. As an advocate of economical and time-efficient orthodontic treatment, Dr. Bagden has a special interest in clinically evaluating new and progressive orthodontic products.
CASE PRESENTATIONS OF WIRE SELECTION FOR VARIOUS CASE TYPES

The following cases are representative of the types of crowding typically treated with the initial wire progression shown in the table on page 2. These cases will give you an idea of how different Copper Ni-Ti archwires can be used in the initial treatment phase. After the initial wire and correction, the balance of the wires placed will follow the table.

CASE 1

PRETREATMENT
15-year-old male, Class II, division 1, with severe crowding. Nonextraction case.

PROGRESS
Initial wires were .016 35°C Copper Ni-Ti in the maxilla and mandible to initiate basic leveling and aligning. Intermediate wires (shown in photos) are .017 x .025 Ni-Ti. After 18 months of treatment, patient is now ready to move to .017 x .025 stainless steel to finish.

CASE 2

PRETREATMENT
58-year-old female, Class II, division 1, with moderate to severe crowding and severe skeletal discrepancies. Initiated nonsurgical treatment and evaluated at six months for extractions and orthognathic surgery.

PROGRESS
Initial wires were .016 Ni-Ti in the maxilla and mandible to initiate alignment and leveling without extreme forces. Six months into treatment, orthognathic surgery was decided upon to correct malocclusion with mandibular advancement. Lower incisor was also removed to maximize surgical advancement. Intermediate wires (shown in photos) are .017 x .025 stainless steel wire in the maxilla and .017 x .025 stainless steel vertical loop space-closing wire in the mandible.
CASE 3

PRETREATMENT
15-year-old male, Class I with moderate crowding. Nonextraction case.

PROGRESS
The same wire was used for the initial and intermediate phases (shown in photos), .016 x .022 35°C Copper Ni-Ti in the maxilla and mandible. After 13 months of treatment, the upper arch completely leveled and aligned. The left central incisor in the mandible needs to rotate (notice the single tie to rotate). The midline will align ideally when the final rotation is complete. The .016 x .022 35°C Copper Ni-Ti can be used to finish or if the rigidity or torque of the stainless steel is indicated, the case can be finished with .017 x .025 stainless steel wire.

CASE 4

PRETREATMENT
35-year-old female, Class II, division 1, with moderate crowding. Previous treatment included extraction of maxillary bicuspids.

PROGRESS
Initial wires were .016 35°C Copper Ni-Ti in the maxilla and .016 x .022 35°C Copper Ni-Ti in the mandible due to different degrees of crowding. After 18 months of treatment, patient exhibits excellent alignment and bite opening. Intermediate wires (shown in photos) are .017 x .025 TMA® T-loop in the maxilla to close upper spaces. The initial .016 x .022 35°C Copper Ni-Ti continues in the mandible. The case will be finished with .017 x .025 stainless steel wire.
COPPER NI-TI CONSISTENTLY PROVIDES OPTIMAL FORCES FOR COMFORTABLE TOOTH MOVEMENT

Copper Ni-Ti® archwire consists of nickel, titanium, copper, and chromium. The addition of copper to nickel-titanium is a sophisticated process that enhances the thermal-reactive properties of the wire and allows a clinician to match specific force levels to individual treatment requirements and goals. This archwire is more resistant to permanent deformation and exhibits a greater springback than traditional Ni-Ti wire. It also demonstrates a smaller loading force for the same degree of deformation, when compared with Ni-Ti wire, which makes it possible to engage severely malposed teeth with less patient discomfort and less potential for root resorption. As technology advances into the twenty-first century, so does the orthodontic profession and its ability to treat individual patients quickly and comfortably.Ormco provides the clinician with three Copper Ni-Ti wire choices depending on treatment needs: 27°C, 35°C, and 40°C. They are also available in a wide variety of arch forms, including Orthos™, Tru-Arch® and Broad Arch.

“New alloys, geared to generate biologically consistent forces, enable the clinician to provide controlled and predictable tooth movement. Copper Ni-Ti demonstrates precise transformation temperature control, is more resistant to permanent deformation and exhibits a smaller drop in unloading force than nickel-titanium alloys. By applying the principle of variable transformation temperature orthodontics with Copper Ni-Ti, I am able to control tooth movement more efficiently.”

– Rohit C. L. Sachdeva, BDS, M Dent Sc

*Distributed in Europe as Ortho-CIS.
With a market capitalization of over $500 million, and a masterfully orchestrated, multimillion-dollar, direct-to-the-public marketing campaign, Invisalign® is a force that is hard to ignore. Let’s face it; whether you love them or hate them, you have to agree that Invisalign’s marketing savvy is driving patients to orthodontic offices in droves – patients who want straight teeth, patients who want beautiful smiles, and patients who want to look their very best, not just after treatment but during treatment as well. Bravo to Invisalign!

But what about those patients who just don’t fit Invisalign’s treatment criteria? Do you turn them away or offer them a convincing alternative – an alternative that’s just as clear and infinitely more effective? An alternative called inspire!™.

Just like many of you, we have embraced the Invisalign system as an exciting new treatment option for our aesthetic-driven practice. We also realize that many of the patients who are drawn to our office by the lure of “orthodontics unwired” need much, much more than a simple collection of aligners. They need braces and the undeniable advantages they afford. Rather than throwing up our hands and crying uncle, we enthusiastically offer those patients a clear alternative – crystal-clear inspire! sapphire brackets that offer the mechanical advantage to adequately treat even the most demanding cases, while meeting the ever-escalating demands of our patients for aesthetic orthodontic treatment.

So how do you sell aesthetic brackets to those patients who initially desire Invisalign? You begin the process during the very first call. Whoever takes that first new patient phone call should be well prepared.
versed in the various treatment options available to those patients who want aesthetic treatment. After answering basic questions about Invisalign, trained staff members should prepare a prospective patient for the idea that they may not be a candidate for Invisalign treatment but that alternatives exist that will allow orthodontic treatment in the most aesthetic manner possible.

An example of scripting might include, “We’re really excited about the latest technologies that allow us to create beautiful smiles invisibly. Dr. Tracey will decide if Invisalign is right for you. If not, we have other ways we can give you the smile you’ve always dreamed of without using those old-fashioned, clunky braces you may be thinking of. Did you know we now have braces made of crystal-clear sapphire – the same material used for expensive watch faces?”

It’s really important that new patients are “pre-framed” to believe that their aesthetic needs can be met in more than one way (Figure 1). Ideally, send the patient both an Invisalign brochure and an inspire! model card along with a welcome letter prior to their first appointment (Figure 2).

As in any sales presentation, the first appointment is extremely important for both the Treatment Coordinator and the doctor to ask pertinent questions and be good listeners. Ask the questions, “Have you or any member of your family or friends ever undergone orthodontic treatment? And when was that?” Many prospective patients assume that braces are big and unsightly based upon past experiences many years ago. Ask the patient, “In the event you don’t meet the Invisalign selection criteria, would you be willing to consider treatment with braces that are every bit as clear, if not more so, than Invisalign aligners?”

Getting the patient to make a commitment to consider additional treatment options up front is an extremely effective sales technique. Once a person makes a public commitment, it is very difficult for them to renege on that commitment.

Of equal importance is that the Treatment Coordinator and doctor exude enthusiasm for the various aesthetic treatment options available to the patient, focusing primarily on the desired results and how they will impact the patient’s life. Don’t apologize if the prospective patient isn’t a candidate for Invisalign treatment. Rejoice with them that they can have the smile they’ve always dreamed of using state-of-the-art braces that are unbelievably clear. Paint a picture in the patient’s mind about how their life will be different with a beautiful new smile and how great they would look in invisible braces (Figure 3).

Get Up Close and Personal

One of the best ways to engage customers in the

Figure 2. Prior to their first appointment, prospective patients who express an interest in Invisalign treatment are sent model cards for both Invisalign and inspire! along with a welcome letter.

Figure 3. Both the doctor and Treatment Coordinator paint a picture in the prospective patient’s mind about how their life will be different with a beautiful new smile, and how great they would look in invisible braces.

*Ask your sales representative about inspire! support materials.
sales process is to involve them by allowing them to experience your product first-hand. Let the patient see and touch the inspire! brackets. Have meticulously clean typodonts with inspire! brackets available for the patient to see, touch and feel. Show them photos of patients in clear braces, and if possible, share with them testimonials from patients who have undergone orthodontic treatment with inspire! brackets.

When describing inspire! brackets, use emotionally charged words such as cutting-edge, crystal-clear, exciting, fabulous, tremendous, and outstanding. And always use positive body language cues. Lean forward toward the patient. Always maintain eye contact. And last but not least, be warm, friendly and show interest.

If you do all this and believe wholeheartedly in your abilities to change people’s lives through the magic of orthodontics, you are sure to convert even the most hesitant patient into a treatment start, whether it be with Invisalign or crystal-clear inspire! sapphire brackets.

finding the balance
BOND RELIABILITY WITH SAFE DEBONDING

Single crystal alumina oxide has challenged orthodontic manufacturers for years in striking a balance between appropriate bond strength and safe debonding. I’ve spent some time with Ormco’s engineers to get a better understanding of how they overcame the challenges with inspire!™.

Previous iterations of sapphire brackets have relied on a chemical bond that is highly unpredictable and, because it’s created at the atomic level, significantly more powerful than we need in orthodontics. Inspire’s bonding is based entirely on achieving a strong mechanical bond. A good mechanical bond relies on undercuts on the base of the bracket into which adhesive can readily flow. The undercuts provide the interlock for the bonding adhesive. Inspire’s undercuts are created by fusing zirconium balls to its base, establishing fillets that expand the contact of the spheres to the bracket, yet leaving undercuts that allow adhesive to flow between and into them (Figure 1). By controlling the uniformity and even distribution of the zirconium balls as well as the volume of the fusing binder and the size of the fillets, inspire’s bonding mechanism means the brackets will stay put until the end of treatment.

Pivot Method for Debonding inspire!
Collapsing a ceramic bracket from its mesiodistal sides can splinter it. Debonding inspire! is safe and easy using the recommended pivot method with the specially designed plastic debonding instrument. The pliability of the instrument distributes the debonding force load across the expanse of the bracket and allows you to get a firm grip without breaking the bracket. To debond, register the debonding instrument squarely under the gingival and occlusal/incisal tie-wings. If you are using brackets with hooks, squarely engage one set of tie-wings occlusally/gingivally while the pliers are flush against the hook. Squeeze the handles together until they firmly meet, then pivot the instrument toward the occlusal/incisal edge in a steady, confident motion (Figures 2-4). The debonding pliers are designed to be used for debonding one case, then discarded.
Did you see the headline last year that asked the American public, “Who wants to have white teeth like Regis?” You can’t look anywhere on television, in the movies or magazines without noticing how perfectly white celebrities’ and movie stars’ teeth are. Regis Philbin is a TV celebrity who popularized pearly whites that penetrated the American consciousness right along with the question, “Who wants to be a millionaire?”

The popular magazine O, The Oprah Magazine asked its readers recently to write an article in response to the question, “What’s made the biggest difference to your sense of well-being?” The first article published in response was entitled, “Tooth Whitening Gave Me More Confidence.” The article stated that whitening teeth is one of the simplest yet most dramatic changes people can make to their appearance. People feel better about themselves with whiter and brighter teeth, and it’s commonly known that people respond to a dazzling, healthy smile in a more positive manner.

So what does this American cultural phenomenon have to do with you, an orthodontist? Society’s preference for white teeth has made a profound impact on our patients. The majority of them come to the office concerned about aesthetics and want the best possible smile. The best smile doesn’t just include straight teeth and a good occlusion, it includes the whole package. Patients who are interested in straight teeth are interested in straight, white teeth. They’re interested in obtaining a brilliantly white smile that projects a youthful appearance.

Orthodontist’s Role in Power Whitening
The orthodontist has numerous advantages over the general dentist when it comes to an in-office power whitening service. Patients connect improving their smile with their orthodontist, not necessarily their dentist. During the course of treatment, your patients’ comfort level increases because of the frequency of their visits and the treatment progress they see. It’s a natural progression from straightening teeth to whitening teeth. The potential candidate is already your patient, so you can offer power whitening as the finishing touch, providing the whole package. Our orthodontic practices are also well suited to offer this service because we generally have a greater number of treatment chairs and staff to perform the whitening procedure. In some states, regulators have even approved orthodontic assistants to perform the whitening procedure when in the presence of an orthodontist.

Debra F. Cook, DDS, MS
Mission Viejo, California

Dr. Debra Cook received her D.D.S. and M.S. in orthodontics from Loma Linda University. She was a recipient of the California Dental Association Scholarship Award and selected to Omicron Kappa Upsilon (Phi Beta Kappa). She is a member of the Tri-County Dental Society, California Dental Association, California Association of Orthodontists, Pacific Coast Society of Orthodontists and American Association of Orthodontists. Dr. Cook has been in practice for 2 1/2 years as an associate at the offices of Drs. Jim Hilgers in Mission Viejo, California, and Steve Tracey in Upland, California.

THE BEST SMILE DOESN’T JUST INCLUDE STRAIGHT TEETH AND GOOD OCCLUSION, IT INCLUDES THE “WHOLE” PACKAGE.
First Step: Survey Your Referring Dentists

When you consider offering whitening, an important step is to survey your top referring general dentists. Don’t underestimate the importance of this step. Call your referring dentists out of courtesy to tell them you’re considering adding this service. Ask if he or she minds if you offer this service to the patients they refer to your practice. We called our top nine referring dentists. Seven felt it wasn’t an issue. What’s more, after the initial whitening, the patient will likely contact their general dentist for any follow-up whitening. It can also open the door for patients to consider other cosmetic restorative dentistry from their dentist.

Power Whitening for Immediate Results

For years, dentists and orthodontists have been using an at-home method of whitening using custom-fitted trays and a diluted concentration of a whitening gel, usually carbamide peroxide. Although this method will work eventually, it’s very time-consuming and takes a great deal of patience and compliance. Technology has come to the rescue with higher concentrations of whitening gels that will, in the presence of a strong light source, make a profound difference in discolored teeth in a matter of minutes (Figure 1).

The exciting news in power-whitening products is BriteFinish®. With this system, it now takes about an hour of in-office time (Figure 2) to successfully accomplish a dazzling white smile (Figure 3). BriteFinish is a 35% hydrogen peroxide gel that is activated using the Demetron Optilux 501 curing light. Our patients use take-home custom bleaching trays for about two hours several nights in a row to achieve the final desired whitening. The patient kit contains a 10% mint-flavored carbamide peroxide gel. It is important to explain to your patient that power whitening will last an average of about two years with periodic at-home touchups. This estimate will obviously vary depending on the patient’s personal habits. Smoking as well as dark foods and drink will diminish results more quickly.

How to Charge for Whitening

Advising your patients that you offer power whitening will open the door to numerous requests for the procedure. The perfect time to introduce this service is the initial visit. The orthodontist and Treatment Coordinator should help the patient visualize what they want their smile to look like, emphasizing that straightened teeth look even better if they’re whitened. You can use the BriteFinish patient brochure to make this point with the before and after photos.

The fee for whitening will vary by area of the country and even office to office. Your fee schedule may include a plan combining the full in-office and take-home whitening procedure plus a fee for the take-home procedure alone. You can also incorporate the power-whitening service into the overall payment plan, allowing the patients to spread the extra cost over their active treatment time. For patients already in treatment, mention the power-whitening process as they are nearing the end of their orthodontic treatment. Patients will be much happier with a dazzling white smile when they are done with the orthodontic process.
happier with their overall experience. When we remove a patient’s brackets, we offer a $50 gift certificate toward the whitening process as an extra incentive for them to choose smile brightening in our office.

With proper patient selection and effective marketing, power whitening can be a wonderful adjunct for the practice seeking to improve patient satisfaction and esteem.


***the hollywood connection***

Standards of what constitutes an attractive smile have changed, and this change is influenced by cosmetically enhanced smiles flashed in movies and on television. Patients are now insisting on the whitest shades that were once considered fake looking. Dental manufacturers are also changing with the times. Lighter shade products have been added to the bright end of the spectrum with names such as Bleach White and Opaque Snow.

The earliest records of bleaching vital teeth date back to the early 1900’s and focused on the search for an effective bleaching agent to paint on discolored teeth. Scientists discovered that the combination of hydrogen peroxide and an accelerated reaction caused by devices delivering heat to teeth is a successful procedure for bleaching. Although it is not entirely understood how bleaching removes discoloration, the basic process almost certainly involves oxidation during which the molecules causing the stains are released. The combination of heat and light appear to accelerate the oxidation reaction. What was started in the early 1900’s has become the basic foundation for the technique used today in our power-whitening systems.

Figure 3. BriteFinish patient displays final shade compared with pretreatment shade.

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### BRITEFINISH BASIC TECHNIQUES

- **Apply layer of Gingival Barrier** 4-6 mm wide on gingiva. Seal interproximal spaces. Overlap 0.5 mm onto dry enamel to seal. Extend resin one tooth beyond last tooth bleached.
- **Visually check that all gingival tissues at resin margin are covered and seal is established.** Light cure resin 20 seconds per light guide width.
- **Apply 1 mm layer of BriteFinish Power Gel (35% hydrogen peroxide) on the labial surface of each tooth.**
- **Light cure for 10 seconds per tooth with Optilux 501 Curing Light (30 seconds with standard lights). Leave gel on teeth for 10-15 minutes.**
- **Remove gel with cotton roll or suction, being careful not to splatter material.**
- **When visible material is removed, rinse teeth and suction. Evaluate shade to determine if additional whitening is necessary.**
- **Cured Gingival Barrier can be removed easily. Remove any interproximal resin that remains.**
- **Results after one appointment.**
How is your practice run? We spend many years learning how to be an excellent orthodontist. We can move teeth and correct malocclusions, but how we take care of our patients ultimately affects the success of the practice.

My entire office staff and I spend a great deal of time reviewing patient care. Everyone has heard that the first and most important patient contact is the initial phone call. That call is absolutely the most important first impression any office can make. Every caller is greeted by a polite, live voice – not a machine directing the call. I believe that in today’s electronic world, machines are taking over too often as the link to a business’s communication network. True, it may be more efficient but it also makes the business experience very impersonal.

When patients enter our office they are greeted with a warm smile from the receptionist (Figure 1). There is always a fresh pot of coffee brewing, and they are seen within five minutes of their scheduled appointment. We try to be as respectful of their time as possible.

A patient will spend not only a lot of money but also a lot of time in our office during their course of treatment. I feel it is very important to explain the treatment plan so that they understand the value they are receiving. We have developed many mechanisms to make sure we communicate with our patients. A separate consultation is conducted to explain the proposed treatment plan, financial requirements and insurance coverage. This is an excellent opportunity for questions and answers. Scheduling this meeting before treatment builds the patient’s confidence in our staff and helps to reduce questions during treatment. At the conclusion of every appointment, either the assistant who attended the patient or I will walk the patient to the front desk. We explain to the parent what was accomplished at the appointment and what will take place during the next visit.

Good follow-up is key in the communication process. I find both verbal and written updates to review patient progress are critical in good patient cooperation. Every four to six months each patient and their referring dentist receive a form reviewing the progress of their treatment. Keeping the referring dentist in the loop shows the patient that you are committed, while keeping your name in front of the dentist.

There are two other aspects of good communication that go a long way in good patient care. First, enable and trust your staff to make on-the-spot decisions. Enabling your staff takes training and education but will increase the positive way your patients’ view your practice. Second, respond
to your patients’ concerns quickly, whether at the office or with a follow-up phone call. They will appreciate the attention and it will confirm that you care about them as patients.

A few years ago I saw a niche that could be filled in the area of patient care. Patients and parents do not like to make the unplanned trip to the orthodontist for minor repairs, missing work and school for the unscheduled appointment. To help the patient manage minor orthodontic repairs, I introduced an emergency kit called Brace Solutions™ and provide one to every new patient (Figure 2). It contains a mouth mirror, push stick, orthodontic emergency wire cutter, alcohol wipe, wax, instruction booklet and place for the doctor’s business card (Figure 3). This kit has been a major improvement for both my patients and practice. Now the patient can make a temporary repair like cutting a poking archwire that is causing discomfort. It gives patients and parents peace of mind when traveling or over a long weekend. The emergency kit has increased our efficiency and reduced emergency visits by 30%.

The combination of personal care, verbal and written communications and on-time appointments has helped transform our patients’ orthodontic visit into a very positive experience and leads to new-patient referrals. Every practice is different but with practical principles like those I have outlined, you can always improve patient care.
The Herbst and MARA appliances are currently the most popular options for Class II correction orthodontists use around the world. While designs vary, the appliances have provided consistent, timely, predictable and profitable results because they are not dependent on patient compliance for success.

Stainless steel crowns were the first choice for anchorage due to the superior strength of their structure and shape. They have a large surface area available to accommodate a variety of accessories and devices with minimal breakage. Many orthodontists who have advocated crowns as an anchorage system for the Herbst* or MARA appliances sometimes use a combination of crowns and bands. Others feel crowns are difficult to manage, so they are more comfortable incorporating bands into their appliance design. Most clinicians agree that the primary advantage of banded Class II correctors is ease of removal, which can be performed by trained clinical staff in a short time.

Recently, modifications to the traditional orthodontic molar band have increased its strength to minimize potential breakage. Modifications include thicker band material, .006 to .010 (Figure 1), double bands laser-welded together (Figures 2a and 2b), a wire soldered to the occlusal surface of either a traditional band or thicker .010 band (Figures 3a and 3b) and solder-reinforced bands (Figures 4a and 4b). Reinforcement of these bands strengthens the appliances and helps to minimize band tearing under the forces they generate.

Due to the increased band rigidity, there are several points to take into consideration.
1. While the laboratory indirectly fits both crowns and bands on the work models, bands have limited room for play in fitting on the tooth, especially when reinforced. To ensure accuracy, it is recommended to fit bands on the patient’s teeth.
2. Traditional bands may need to be sized a half
size larger. This will help compensate for the loss of stretch or reshaping properties of the band during modification.

3. Take good alginate, or preferably polyvinyl siloxane, impressions to avoid distortions in the work models used to fabricate the appliance. The bands should be reset and secured in the impressions by a pinning or gluing technique. Then pour using orthodontic stone.

With advancements in today's technology, the laboratory is able to accommodate most design modifications requested. To minimize possible exceptions and contraindications, the AOA/Pro technical support team is always available to answer questions regarding the design and performance of the Herbst or MARA appliances to fit your patient's unique treatment goal. Call Dave Nelson, Herbst team leader, and Jerry Engelbart, MARA team leader, at (800) 262-5221.

*Herbst is a registered trademark of Dentaurum.

**Dave Nelson** joined AOA/Pro over 13 years ago and has been the supervisor of the Herbst Fabrication Department for the past ten years. He oversees all aspects of Herbst and metal production, including crown and band fit and seating, soldering, laser welding, cut and polishing and activation. He communicates daily with doctors and staff to fulfill their Herbst requirements and attends Herbst appliance seminars and courses given by leading clinicians.

**Jerry Engelbart** is the lead development technician for the MARA at AOA/Pro. He began his career in the dental laboratory field with Professional Positioners where he worked for 12 1/2 years. He moved to AOA six years ago. His experience includes functional and distalizing appliances, adapters, acrylics, metals and specialty designs. Development of the MARA has been Jerry’s primary focus for the past four years.
IT'S A MATERIAL WORLD...

And the Material of Choice is Titanium

Introducing Titanium Orthos2™, combining two proven performers – titanium, the 21st century alloy, and Orthos, the only orthodontic appliance system whose geometries and arch form are anatomically based.

For some of the same reasons that it has improved golf swings and tennis lobs all around the planet, titanium is going to have a powerful influence on orthodontics. As strong as stainless steel with equivalent frictional properties, titanium has twice its resiliency. Titanium Orthos2 acts as a shock absorber, insulating the adhesive bond from torque and occlusal forces for greater bond reliability and patient comfort. Titanium is also highly corrosion resistant and well documented in the medical literature for its biocompatibility.

All this adds up to a bio-friendly, bio-durable bracket in the proven Orthos prescription, now with new anatomically designed pad configurations.

In the material world, the material that's setting new standards is titanium. In the orthodontic world, that standard is Titanium Orthos2.
INTRODUCING THE CARD
Ormco’s Ultimate Adhesive Dispensing System

Precise bracket placement is essential to an efficient, high-quality result. The Card, Ormco’s ultimate adhesive dispensing system, makes the bonding procedure itself more efficient. Under each protective foil bubble lies a tooth-specific dose of Enlight light-cure adhesive for an entire bonding (7-7). Using the sticky white circles for bracket set-up, peel back a single foil bubble, swipe the bracket through the adhesive, press and place, then light-cure with the Optilux 501 curing light. Quick and easy. The Card keeps flash clean-up to a minimum, stores easily and is date-stamped to ensure freshness. And the best news... The Card is offered complimentary with every 10 cases of Ormco bracket appliances purchased.

So now from Ormco you have The Card with Enlight light-cure adhesive... OptimeshXRT pad mesh with 35% improved bond retention... and the Demetron Optilux 501 curing light for an efficient bonding system with proven bond reliability. Going to Toronto? Come into the Ormco booth and swipe a few brackets. Get the feel of The Card.

Clinical Impressions live!
Ormco Booth #515

Ormco will feature in-booth presentations with major clinicians from the orthodontic profession. These 30-minute presentations will be lead by such doctors as Terry Dischinger, Steve Tracey, Mario Paz, Jim Eckhart and Rohit Sachdeva on a variety of topics relevant to your practice.

For the most up-to-date schedule, speaker list and topics, visit the Ormco Web site at www.ormco.com or visit the Ormco booth at the AAO to pick up a schedule.

Short Stick Power “O”s
Now in Vibrant Colors

Your patients want colors... lots of colors. You’re interested in features like single-patient use and convenience. Now you can have both with Short Stick Power “O”s. The new configuration combines a tree of 10 power “O”s with a finger tab for easy handling. Designed for single-patient use, it avoids cross contamination while adding convenience and decreasing waste.

Short Stick Power “O”s are available in 24 vibrant colors and coordinate with Colored Power Chain. They are packed in 1,000’s (100 trees/10 each) and all are sized .120. Ask your sales representative to see the new Short Stick color choices.

Stimulating Mandibular Movement with the SBJ

The Standard Bite Jumper (SBJ) treats Class II malocclusion quickly and economically and your patients will appreciate its comfortable design. The SBJ is anchored using stainless steel crowns at the upper first molars and lower first bicuspids. Enlarged pivot openings enhance lateral excursions, increasing durability and side-to-side movement. The shape of the Hex-head screw is comfortable and offers better accessibility for adjustments. The SBJ can be fabricated in your office, so there’s no waiting or lab costs. For more information, contact your Ormco sales representative or see it at the AAO.
MAY 5–8, 2001 • ORMCO BOOTH 515 • NEW PRODUCTS • BO

BriteFinish Teams Up with Optilux 501

The Optilux 501 is the perfect companion for the BriteFinish Power-Whitening System. With BriteFinish and the 501, you can provide one-visit, in-office power whitening that will give your patients a brighter and more perfect smile. After BriteFinish is applied, each tooth only needs to be light cured for 10 seconds with the Optilux 501 special Bleach Mode as compared with 30 seconds per tooth with standard curing lights.

You can use the most powerful and versatile curing light available today – the Demetron Optilux 501 Curing Light. It greatly reduces the time required for direct bonding procedures and will cure all light-cure adhesives. And now, the 501 provides BriteFinish with an extra power boost for a bright, beautiful smile and a satisfied patient.

Optilux 501 Curing Light Named Reality’s “Product of the Year”

The Demetron Optilux 501 Curing Light has just been awarded “Product of the Year” for 2001 by Reality, publishers of an information source book for aesthetic dentistry. This prestigious honor follows on the heels of “New Product of the Year” award for 2000.

AOA/PRO “ON DISPLAY” IN TORONTO • BOOTH 421

Interested in the latest advances in orthodontic laboratory appliances and services? Visit our lab pros at the AAO in Toronto. We’ll be conveniently located across from the Ormco booth. The AAO is an excellent opportunity for you to meet David Allesee, Max Hall, Paula Allen-Noble and other representatives and technicians on the AOA/Pro team, and we look forward to assisting you. We’re also featuring a number of speakers at Ormco’s Clinical Impressions Live! sessions. Visit www.ormco.com to review the full schedule of speakers and times. Here are a few of the appliances you’ll see on display in Toronto. For additional information, call us at (800) 262-5221.

MARA

A simple, durable Class II corrector, the MARA has numerous benefits over other fixed appliance techniques. Come see the new ligation system and lower arm design. Dr. James Eckhart and Paula Allen-Noble will be presenting on the MARA at the AAO annual session.

Herbst Appliances

As a popular noncompliance appliance, the Herbst® provides predictable correction of skeletal and dental Class II malocclusions. See all the options available to you in Toronto and pick up a Herbst information book at our booth.

Distal Jet

The Distal Jet distalizes maxillary first and second molars and retains the result with one appliance. It produces unilateral or bilateral molar distalization and rotation corrections, typically in four to nine months, without patient compliance.

Clearly the Superior Choice in Aesthetic Appliances – inspire!

Inspire!” is the only crystal-clear sapphire bracket available in orthodontics. It’s made of pure, monocrystalline sapphire that is chemically inert and will not absorb, discolor or stain. Best of all it is a Straight-Wire® Appliance and you can combine inspire! with any other Straight-Wire bracket within the arch without compromising treatment. See the ultimate in aesthetic appliances in Toronto.

*Blast is a registered trademark of Dentaurum.
**Damon System 2**

It’s all about comfort . . . quality . . . and your patients. The Damon technique employs a specific combination of high-tech, low-force archwires in a coordinated arch form to maximize the clinical potential of the bracket design. This passive self-ligating system facilitates tooth movement and controls torque and rotations quite differently from other bracket systems. It is designed to stay within a force level range throughout treatment that promotes patient comfort and biologically compatible tooth movement. See the Damon System 2 in Toronto or visit http://damonsystem.com.

**Instrument Questions? See AEZ Founder, Al Ezcurra, in the Ormco Booth**

Here’s a rare opportunity to have your in-depth instrument questions answered when you meet Al Ezcurra, founder of AEZ®, at the AAO. Visit the Instrument Station where Al will explain features and benefits of the AEZ instruments plus give you a hands-on demonstration of cutters, utility pliers, wire-forming pliers, debonding and adhesive-removing pliers, to name a few.

AEZ instruments, widely recognized for its pliers, are precision fabricated from the highest grade of stainless steel bar stock. All surfaces are polished and buffed until free of imperfections and bacteria-collecting crevices. The result is a smooth finish that will resist corrosion, peeling or discoloration from today’s rigorous sterilization procedures.

ETM® cutters are manufactured from surgical grade 410 stainless steel, have diamond-honed tool steel inserts and are chrome plated. Noncutting instruments are made from technologically advanced XQ25 stainless steel forgings for unsurpassed corrosion resistance, strength and durability.

Come see the entire line of high-quality AEZ and ETM instruments at the Instrument Station in the Ormco booth at the AAO in Toronto.

**Pedo**

6 models in the primary dentition.

**Gnathos**

9 models in the mixed and permanent dentitions.

**Pro®-Pal Products**

Our complete line of consultation models, appliances and products offer your practice all the tools necessary to enhance patient consultation and staff education. All Gnathos, Pedo and Master series feature descriptive imprinting, color-coded markings and coordinating upper/lower arches. Custom typodonts per your prescription are also available.

**Indirect Bonding Services**

Indirect bonding is becoming increasingly popular. AOA actively researches, evaluates and implements the latest innovations in labial and lingual indirect bonding technology. We offer several methods and techniques. Our lingual service also includes the CLASS, TARG and Fillion methods of bracket placement. Ask about our new Ortho Solo and Enlight LV bonding techniques.
The same scenario is played out in orthodontic offices around the world. Everyday you end up in the heat of battle. It’s three o’clock in the afternoon and your waiting room is overflowing. All of your two o’clock patients just arrived late because they all waited for school to get out before coming to the office. Your three o’clock patients are right on time because they came directly from school and your four o’clock patients are all early – they came to the office when school got out rather than going home first. It’s just another delightful afternoon of schedule compression! The familiar refrain “wastin’ away in Margaritaville” sounds really tempting right about now.

To add insult to injury, you quickly get behind when one assistant discovers that Billy Brown has a loose bracket. His mom insists that you rebond it right now so she won’t have to make another appointment for something you should have done right in the first place. Instead of a scheduled 10-minute appointment to simply check and retie the archwires, you are stuck with 20 to 30 minutes of chair time to rebond the bracket. Now the regularly scheduled patients are going to have to wait even longer. A few minutes later, Sally Smith admits to her assistant that she has a loose bracket, too. All this happens during the most hectic time of your workday. Murphy’s law strikes again! It feels like it’s time to order one of those portable blood pressure monitors you saw in a catalog.

**LOOSE BRACKETS = MULTIPLE PROBLEMS**

One of the first steps in any 12-step program is to admit you have a problem. Some orthodontists realize that loose brackets are a problem in their practices but many of us are in serious denial. Repairing our work is wasteful of time and resources and is stressful and inefficient. Loose brackets lower morale, reduce profitability and wreak havoc with scheduling. Nationally, it is estimated that in the average office 25 to 30% of all brackets placed will come loose sometime during treatment. I have visited many practices where four out of every five patients have one or more loose brackets and the staff and doctor act as if this is just a normal part of their day. It is amazing to me that we would run our businesses this way. Many orthodontic teams seem to have given up and feel that it is less work to just live with the problem than do the work necessary to solve it. I suppose many of us feel that loose brackets are entirely the patient’s fault and we are powerless to do much to effect a dramatic change. The fact is that reducing bond failure is within your control and there are specific things you can do to reduce the problem.

**DETERMINE SIZE OF PROBLEM**

Zero percent bond failure is not a realistic goal, but many practices have mastered the art and science of reducing bond failure to acceptable minimums of less than 5%. The average practice experiences several loose brackets a day rather than a loose bracket every several days. If you bond upper and lower arches 5-5 (20 brackets per case) and start 20 cases...
per month, you will bond a total of 400 brackets that month. This does not include any of the other individual bonds you place. For example, Figure 1 shows that if you bonded 400 brackets per month, have an average bond failure rate (or BFR) of 25% and work 4 days a week, you will experience 100 loose brackets per month or 6 loose brackets per workday. If you reduce your bond failure to 2%, you can see that you would experience a loose bracket only every few days.

Based on Figure 1, make a guesstimate for your practice:
Total number of
- case starts per month
- brackets placed per month
- days worked per month
- loose brackets experienced per day
- bracket-failure rate

Would your staff agree with your guesstimate? In reality most doctors and their staff underestimate the extent of their bond-failure problems. To know for sure, you must carefully track the number of new brackets placed and loose brackets experienced to identify the size of the problem and determine the amount of money you are losing each month. Knowing your exact bracket-failure percentage can be a great motivator for lowering the number, improving morale, increasing your profitability and having a stress-free schedule.

It is key for you to believe that there are offices where a loose bracket is an uncommon occurrence – not a daily event. The quick and easy method of determining whether or not you have a problem is: if you experience more than one loose bracket in your practice every few days, you have a problem.

REALITY IN THE BUSINESS WORLD
Most businesses do not tolerate more than one in a million defects and yet many orthodontists live with defect rates (loose brackets) of one in four on a daily basis. An orthodontic office is a business, and basic business training (had we received it in school) would have taught us not to tolerate defects if we want to run it effectively.

We make a huge mistake when we assume that a loose bracket costs only about the same amount as a replacement bracket. In reality, there are a host of other costs that directly reduce the profit piece of the practice pie. Each and every loose bond that your practice suffers reduces your net income. The increased costs to the practice are both tangible and intangible and none of them should be overlooked.

PUBLIC RELATIONS COSTS
Mothers do not appreciate taking their children out of school to fix problems that are your fault. Patients feel that loose brackets are rarely their fault and are often reluctant to assume responsibility for the problem. Someone is at fault, so it must be you or your team. Patients expect flawless treatment and when a bracket comes loose, expectations are not met, creating frustration. Unhappy patients tell dozens of others about their negative experiences but satisfied patients tell few.

PERSONNEL COSTS
Few things burn out staff quicker than dealing with irate mothers. Stress begins with the discovery of a loose bracket at the chair or a phone call to the office. Nobody is happy when a bracket comes loose – not the parent, patient, staff member or orthodontist. Every loose bracket produces frustration and stress that take their toll on your team members.

SCHEDULING COSTS
The schedule always suffers when brackets come loose. You and your staff members spend time repeating work previously com-
pleted, and the parent and patient spend extra time and mileage. Everyone involved would prefer to be doing something else. No matter how fast and easy it becomes to replace a loose bracket, you are still repeating previously performed work. Labor is not free and it always hurts your profitability.

**CLINICAL SUPPLY COSTS**

Many of the same supplies are needed whether bonding 20 brackets for the first time or rebonding one bracket for the second or third time. Patient napkins, cotton rolls and other disposable items all cost money. There is also a cost associated with preparing the chair and cleaning up after the appointment, as well as sterilizing all non-disposable instruments. A new bracket is often used to avoid another debond, but even if the bracket is microetched and reused, there is still a waste of not only time but also money. Often, a new wire needs to be placed because the current wire has either been clipped or will not fit into the newly rebonded bracket. Bottom line: a loose bracket really is a profit vacuum!

**EXACT COST OF A LOOSE BRACKET**

I’m not certain of the exact tangible cost of a loose bracket, and orthodontists seem to vary in their estimates from $25 to $150. In our office the *true cost* is close to $100 per loose bracket. I have a hard time imagining that in most offices the cost is less than $75 per incident. And most offices charge nothing for the extra work. Some attempt to charge the patient but it often does more damage to their public relations than it is worth. Does charging $25 for a loose bracket even come close to covering the costs? I doubt it. By the time the doctor washes, gloves up, sits down, talks with the patient, positions the bond, says goodbye, removes the gloves and washes hands again, several minutes have elapsed. Considerable staff time is spent to prepare the chair, talk with the patient, untie or remove the wire, prepare the tooth, position the bracket with the doctor, replace the wire, clean up the chair for the next patient, reschedule the patient, dismiss the patient and sterilize the instruments. Consider all the tangible supply and instrument costs, disposable items, preparing trays, cleaning the nondisposable instruments, sterilization, etc. Add to those costs all of the intangible costs to the practice. You end up with a problem that simply should not be ignored.

Fill in the blanks of the cost of rebonding in Figure 2, being realistic with your numbers.

Using Figure 3, you can see how an estimated repair cost and annual number of case starts translates to dollars lost based on a percentage of bond failures. If your bond failure rate is 25% and you start 200 new cases per year, your bond failure rate could cost you anywhere from $25,000 to $100,000 per year. Lowering your bond failure rate from 25% to a barely acceptable 5% would cost you $5,000 to $20,000 and save you $20,000 to $80,000 per year – year after year! Is it worth the effort to calculate and then reduce your bond failure rate to 5% or less?

**HOW WE REDUCED BOND FAILURE IN OUR PRACTICE**

Ten years ago we finally admitted that we had a problem that was costing a significant amount of money each month. We knew the first step in reducing the damage to the practice was to determine our exact bond failure rate, so we started carefully counting brackets. This was easier to do than I ever would have guessed. We created a Loose Bond Card and filled one out for every loose bracket. In addition, we counted every new bracket. (Refer to Lori Garland Parker’s article in this issue

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**FIGURE 2**

**CALCULATING THE COST OF REBONDING**

**BASED ON ONE CLIENT VISIT WITH A LOOSE BRACKET**

<table>
<thead>
<tr>
<th>COSTS</th>
<th>EXPENSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Napkin</td>
<td></td>
</tr>
<tr>
<td>Cotton Rolls</td>
<td></td>
</tr>
<tr>
<td>Bonding Materials</td>
<td></td>
</tr>
<tr>
<td>New Bracket</td>
<td></td>
</tr>
<tr>
<td>New Archwire</td>
<td></td>
</tr>
<tr>
<td>Sterilization</td>
<td></td>
</tr>
<tr>
<td>Receptionist Time (10 min.)</td>
<td></td>
</tr>
<tr>
<td>Assistant Time (20 min.)</td>
<td></td>
</tr>
<tr>
<td>Doctor Time (10 min.)</td>
<td></td>
</tr>
<tr>
<td>Other Costs</td>
<td></td>
</tr>
<tr>
<td>Overhead Factor</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>****</td>
</tr>
</tbody>
</table>
entitled “Tracking, Analyzing and Preventing Emergencies.” She has developed a similar card, which is shown.) Each assistant handed in the numbers at the end of the day to a designated tracking assistant (someone who liked keeping track of numbers and was passionate and motivated to help minimize the problem).

After tracking the numbers for several months, we discovered that we had a 22% bond failure rate! If we had not carefully counted and calculated a true percentage, I would have guessed we had much less of a problem. Actually, I guessed that our bond failure percentage was probably about 10% and my staff guessed that it was about 15%. Obviously, both guesses were lower than reality. This is typical and unless you count, you will guess you have less of a problem than you actually have. As we have already seen, the difference between a 25% and a 5% bond failure rate can mean thousands of dollars that could go straight to your bottom line – take-home profit.

![Table of DOLLARS LOST FROM REPAIR COSTS based on percentage of bond failures](image)

Average number of new case starts per year as indicated in the 1999 JCO Orthodontic Practice Study.
Once we knew our bond failure rate, we instituted steps and set a goal of achieving a rate of less than 5%. During the evaluation process, I discovered that each assistant was using her own special isolation technique, etching times, adhesive, etc. So I went back to basic science and evaluated how we prepared the teeth, isolated, etched, rinsed, dried, sealed, etc., to make certain that our technique was as perfect as possible. A critical article to review is “Achieving a 95% Bonding Success Rate” by Dr. Michael Swartz, Clinical Impressions, Vol. 4, No. 3, Page 14.

**STEPS WE HAVE TAKEN TO ENSURE SUCCESS**

1. Thoroughly pumice before bonding just to be sure that all plaque is removed.
2. Isolate the teeth using a NOLA retractor and Dri-Angles®, allowing complete control.
3. Thoroughly dry the teeth with air spray.
4. Etch with a dark gel etch. It stays in place and is easy for the assistant to see.
5. Etch for the manufacturers prescribed 30 seconds per tooth.
6. Thoroughly rinse each tooth for 3 to 5 seconds with air/water spray, not just a light water rinse.
7. Thoroughly dry each tooth with air spray and then use a NOLA air dryer to desiccate the enamel. Key: Immediately apply activator (System 1+™) to the etched enamel or a sealant like Ortho Solo™.
8. Place the bracket quickly and position it accurately. Then leave it alone. Continued movement of the bracket after the initial set will result in lower bond strength. Be aware that an initial set will start to occur with light-cured adhesives in ambient light soon after placement. Even with light-cured adhesives, wet-field adhesives and precoated brackets, I still experienced much higher bond failure rates than I do now with System 1+ adhesive.
9. Use lower force systems of wires to reduce the pressure on the adhesive bond. We routinely use Copper Ni-Ti® and TMA+® wires in an .018 slot Orthos® bracket with Optimesh® XRT and gingivally offset bicuspid pads. We rarely use stainless steel wires anymore.
10. Buy expensive brackets because they stay on the teeth. I would rather pay full price for the most expensive bracket made and only encounter a loose bracket every few days in a busy practice than buy the cheapest bracket and have loose brackets every day. Think about it... at a cost of $75 per loose bracket, it only takes a couple of loose brackets per case to cost you more than all your brackets and wires combined to treat the case. Cheap products are really extremely expensive. You get what you pay for.

**REEDUCATE YOUR TEAM**

The next step of the process was to reeducate the staff and help them understand why each step of the bonding procedure is crucial to the overall process and why shortcuts can result in a weaker bond strength. Constant retraining and follow-up is critical to the training process. Otherwise entropy sets in and each staff member eventually evolves their own special way of doing it (after only a few short weeks), skipping steps and taking shortcuts, which ultimately result in an increase in bond failure.

**TRACK LOOSE BRACKETS EVERY DAY**

As we tracked the numbers day in and day out, month after month, we watched our bond failure rate steadily go down until we finally achieved a 2% bond failure rate. It remained there for a number of years and then we got complacent and lazy. We quit focusing and counting for awhile before we all sensed that we were encountering more loose brackets. We started counting in earnest again and, sure enough, our bond failure rate had risen. Interestingly, we had hired some new clinical personnel and everyone had evolved their own bonding system again – entropy had set in. So we retrained again and slowly lowered the number. We currently maintain a bond failure rate of 2 to 3% and we are committed to never quit focusing on it. The costs are just too high.

**TRACKING BOND FAILURES**

**Assistants Role**

- Count the number of new initially bonded brackets each day (both new-start brackets as well as individual bonds on cases in progress).
- Count the number of loose brackets rebonded each day and fill out a Loose Bond Card. If you find
a loose bond but choose not to rebond it, do not count it as loose until it is rebonded. If you never rebond it, then count it as a loose bracket on the day that treatment is finished and all other brackets are removed.

**Statistical Assistants Role**
- Tally the number of new initially bonded brackets placed by all assistants each day.
- Tally the number of loose brackets rebonded (or count at the debond finish appointments) by all assistants each day.

At the end of the month, total the daily tallies and calculate the bond failure rate. For example, if you started 20 cases and bonded upper and lower 5-5, you would have placed 400 brackets on new starts. Include any other new bonds placed on limited cases, or newly erupted teeth, and add another 50 brackets for a total of 450 new brackets. At the end of the month you have rebonded a total of 50 loose brackets and counted another 5 other loose brackets at the debond appointments (which you did not rebond) for a grand total of 55 loose brackets. Your bond failure rate for that month would be 55 loose + 450 new = 12% bond failure.

It is important to note that you must track bond failure long term to have an accurate number. If you have an unusually large number of starts one month compared to adjustment appointments, you will have a larger-than-normal number of new brackets that month, which will make your bond failure rate that month seem much lower than it really is. If you start using one particular bracket or new adhesive, it will take many months before you gain an accurate idea of what the relative bond failure rate is for that particular type of bracket or adhesive.

Incidentally, in my practice we now bond upper and lower 7-7 routinely. I was very reluctant to try bonding molars because I assumed that molar bonds would just fall off the teeth. A friend suggested that I try bonding molars because he found it to be very successful. I overcame my fear of the unknown, tried it and haven’t routinely banded molars since. We now have less loose molar bonds than with our previous method.

There are two other pieces of valuable information to record and track that you will find helpful. The assistant should record which tooth the bracket was located on so possible patterns can be detected. At one time, we found that lower left second bicuspids were coming off at an increased frequency when compared with other teeth. After discussing the issue, we found that some assistants found it difficult to gain access to the lower left posterior quadrant. The teeth were not being adequately etched and then rinsed. So we trained and were able to lower the incidence of those bond failures.

The assistant should also record where the failure occurred. Is there adhesive still on the tooth? If so, the failure occurred between the bracket base and the adhesive, indicating a bracket/adhesive problem. Or, is the tooth surface free of adhesive? If so, the problem is probably technique related, indicating a problem with the tooth preparation, etching, rinsing, drying, sealing and so on.

The ultimate step is to track each assistant’s bonding stats so that each knows their percentage of loose bonds and whether their bond failure rate is going up or down. Loose bonds really do have a lot more to do with us and our techniques than our patients.

**CELEBRATE YOUR SUCCESS**
Success involves every member of the practice. As a team, set a goal for how much you are going to reduce the bond failure rate and celebrate when you reach it. Reward yourself and your staff for reducing bond failure and eliminating the damage that it does to your business. A bonus or incentive for your staff is an excellent method to gain support and create enthusiasm for the project. The success you achieve will increase your profitability.

I should also mention some clinical observations I have made about other factors that have helped reduce our bond failure rate. Using low-force archwires such as Copper Ni-Ti and TMA has helped reduce the amount of loose bonds. I found stainless steel wires seemed to be related to a higher incidence of brackets popping off the teeth. I also noticed that when we switched from .022 to .018 slot that our loose bracket percentage went down. I have wondered if the fact that we couldn’t place larger wires (i.e.; .019 round, .021 round, .019 x .019, .019 x .025, .021 x .025, etc.) helped reduce strain on the adhesive bond, result-
ing in fewer loose bonds. We currently see the majority of our fully bonded cases every 10 to 14 weeks, unless they are noncompliant or specifically need to be seen more often for a particular reason. If our bond failure rate were still high, we would definitely not be able to see patients at extended intervals. Seeing a patient every month is necessary if that patient has a lot of loose brackets and you need to check regularly to rebond all the loose brackets just to keep treatment on track. Reducing bond failure allows you to take advantage of today’s bracket and wire technology and extends treatment intervals, letting the systems do their job for successful treatment.

Orthodontics is a great profession. Orthodontics can also be a rewarding business if we pay attention to the details. Reducing bond failure is an easily achievable goal and doing so can directly increase profitability in your practice. Don’t be complacent and just put up with loose brackets in your practice.

Albert Einstein said, “Not everything that counts can be counted, and not everything that can be counted counts.” Loose brackets are a phenomenon that definitely can be counted, and bond failure definitely counts as something that can make a huge difference in the quality of life for you, your team, your business and, most importantly, your patients.

Ortho Solo is all you need – a universal adhesion-boosting primer and sealant all in one bottle. It requires only one application to the tooth structure with no light-cure or air-dry step in the procedure, saving valuable chair time. Ortho Solo is much less technique-sensitive and time-consuming than other products, saving you steps in the bonding procedure and reducing your inventory.

Ortho Solo boosts bond strength and reduces costly bond failures through a unique chemistry...
First-time users, long-time users, doctors and staff... Join Dr. Dwight Damon for this exciting simultaneous nationwide videoconference where he will share important techniques for harnessing the full potential of modern high-tech, low-force wires through his passive self-ligating system. Learn bracket placement protocol and dozens of clinical pearls for translating low-friction mechanics into comfortable, efficient tooth movement and high-quality results. See Dr. Damon conduct actual patient consultations and learn firsthand why these patients are driving up case starts. You can even participate in a real-time question and answer session. Fees for this half-day event are $100 for doctors and $25 for staff members (4 CE units). Space is limited. Register early. Contact Pat Contreras at 800-854-1741, Ext. 7598 for the hotel location in the city nearest you.
The routine bonding of first and second molars has been problematic for many orthodontists. Difficult access, requirements for auxiliaries and additional buccal tube attachments and posterior occlusion can all contribute to molar bond failures. Currently, most orthodontists band molars but would prefer to bond if failure rates could be reduced to an acceptable level.

It would be reasonable to assume that to improve molar bond retention, we should consider all the possible contributing factors such as access and visibility, buccal tubes, occlusion, and perhaps the bonding area. A similar problem was encountered with bicuspid bonding. The successful bonding of bicuspid seems to have been resolved with the use of a gingivally offset bracket on a bonding base that extended more occlusally1 (Figure 1).

The concept behind the bracket/base combination was to shift the bonding area more occlusally to the less problematic middle and occlusal enamel and not to simply increase the bonding area. A similar approach has been taken with the molar buccal tube and bonding base design. I have been bonding molars with this bondable molar buccal tube for the past six years, achieving a failure rate of under 10% on first and second molars (Figures 2 and 3).

In designing bondable molar tubes, limitations were set on the placement and use. First, their use was restricted to cases requiring only a single buccal tubes with no auxiliary slots, headgear or lingual attachments. Second, the size of the molar bonding base was increased and the buccal tube was welded at the most gingival edge (Figure 4). Again, the intended purpose was to increase the amount of the problematic occlusal third of the enamel being bonded and decrease the amount of more problematic gingival third enamel. And third, additional care would need to be taken to gain better access, visibility and saliva control for bonding molars. For patients with limited access, a Dri-Angle® (Figure 5) can be placed in both the buccal and lingual vestibules. With the patient’s head tilted, a saliva ejector is positioned on the opposite side of the molar being bonded. Using a finger or mouth mirror, the buccal Dri-Angle and cheek is retracted to expose the molars. This will often allow almost direct access to the first and second molars. The molars are bonded on the one side and the procedure repeated on the contra-lateral side.

As the bonding base area increases, the likelihood of it not seating completely increases. To ensure proper fit of the enlarged bonding base, it is
BONDABLE MOLARS WITH GINGIVALLY OFFSET BUCAL TUBES – NEW ALTERNATIVE TO BANDS

An enlarged pad, gingivally offset tube and increased bond strength combine to give you a new reason to move into bonding molars. The new gingivally offset single buccal tube eliminates many of the problematic areas you may have experienced, so you can bond with new confidence.

Features That Increase Bond Strength
1. Pad enlarged in mesiodistal dimension to increase bonding area.
2. Buccal tube welded to most-gingival edge of enhanced pad.
3. Optimesh® XRT increases bond strength 35% by enhancing undercuts in the mesh. It also minimizes cleanup at debonding.

The advantages of bonding molars, such as time savings, reduced inventory, increased patient comfort and less gingival irritation, can be realized with the availability of the new pad configuration for Peerless® Tubes used with the Orthos™ System brackets and Straight-Wire® Micro Tubes with the Damon System 2 brackets. Ask your Ormco sales representative to see the NEW Gingivally Offset Buccal Tube at the AAO in Toronto.

Dr. Michael Swartz has spent more than 30 years in the dental field in a variety of capacities. He began his profession as a dental technician and then became a dental materials research chemist, later earning his D.D.S. from the University of Southern California School of Dentistry. While serving as the director of research and development for Ormco, he also developed a practice and began lecturing. He returned to school and earned his certificate in orthodontics from the University of California at San Francisco in 1985 and then opened a private practice in Encino, California, while continuing to lecture both in and outside the U.S. He currently holds the position of director of clinical affairs for Ormco, conducting numerous continuing education programs. He has given over 300 presentations around the world and publishes extensively in both clinical and research journals.

Reference:

Bonding techniques for molars apply to all bondable brackets.
1. Isolate and obtain reasonable saliva control.
2. Etch for approximately 30 seconds per tooth.
3. Thoroughly rinse each tooth for at least 5 seconds with a forceful air/water spray.
4. Dry each tooth with a clean, dry air source.
5. Place the buccal tube, position and press firmly.
6. Remove the excess resin and reposition if necessary. Note: Position the bracket well before the resin has begun to polymerize, and leave it undisturbed during the initial polymerization setting.
7. Place an initial, light archwire (e.g.; nickel-titanium, Copper Ni-Ti®). Instruct the patient to eat a soft diet for the first few days. Even light-initiated bonding resins require 24 to 72 hours to reach maximum strengths.

Figure 4. Molar bonding base is increased in size and bracket placed at the gingival edge.

Figure 5. Dri-Angle is placed in the buccal and lingual vestibules prior to bonding procedure.
“If that wire bothers you, just come on in and we’ll clip it for you.” Does that sound familiar? Although the statement is friendly and supportive, wouldn’t it be better for both the patient and the practice if the patient didn’t need to make a special visit to the office for a clip or repair? What we have traditionally called orthodontic emergencies come in all shapes and sizes – the typical wire clip, a loose bracket or band, or missing separators. It is common to accept these situations as a normal part of practicing orthodontics; however, the entire orthodontic team and patients feel the stress and endure the deleterious effects they have on the practice.

As part of my clinical consulting, I conduct informal interviews with patients and parents. Their candid replies offer great insight into the public’s perception of the office, staff and doctor. Most patients and parents are very happy with the doctor and staff but express concern for the extra emergency trips to the office. Their tone of voice begs the question, “Can something be done to improve this?” Evaluating and understanding the type and source of emergencies is essential to enhancing their comfort and overall experience with the office.

Every emergency you encounter is expensive in lost time and takes profit out of your pocket. Each emergency individually may not seem costly but when you multiply several emergencies per day by the weeks and months in each year, the costs are significant in many practices.

Many teams could go on a European retreat every year for the money that is lost treating avoidable emergencies and excess appointments.

**BEWARE OF EMERGENCIES IN DISGUISE**

Often emergencies are disguised and waiting to be uncovered at a regularly scheduled appointment. Teams who communicate to their patients to call the office when a problem arises typically receive more calls than those who do not. In many practices often the problem is uncovered at the regular appointment, creating havoc with the appointment schedule and in some cases extending the patient’s treatment time (particularly if the repair is rescheduled).

With increasing costs and an unclear economy, the importance of practicing in the most efficient and effective way is essential for the spirit and health of the practice. Tracking the details of problems found during special visits and problems found during regular appointments, defining the cause and time needed for their resolution, and calculating the percentage of these procedures provides valuable information so corrective procedures can be developed and measured for efficacy. To calculate the impact in your practice, conduct a minimum two-appointment cycle study. Record every problem that is not in the treatment plan. Devote doctor time to see each special-visit patient to aid in the analysis. Then, take the total number of clinic hours per month and divide this number by the hours spent during special visits and any repairs. For example, if a practice has 120 clinical hours per month and spends 12

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*Lori Garland Parker, MA, Clinical Consultant, Consulting Network, Camarillo, California*

*Lori Garland Parker* is a clinical consultant working with orthodontic teams to maximize their talents to achieve clinical efficiency and effectiveness, develop systems for continuity of care, and enhance communication skills with patients and parents. She is cofounder of Consulting Network, a practice management consulting group located in California. She has written articles for numerous publications, leads clinical workshops and lectures throughout the United States and abroad. Ms. Parker has an undergraduate degree in business, a masters in organizational management and is a registered dental assistant in extended functions. She is a member of the American Society for Training and Development.
hours during this time repairing appliances, 10% of clinical time is consumed with nonproductive activity. Ideally, the total percentage of all repairs (scheduled or found at the chair) should be 5% or less.

To effectively change the situation, analyze each special visit to develop preventative measures. Using a detailed emergency analysis form will provide the basic information needed for change. Use the form entitled “Patient Emergency/Repair Slip” to track patients who call with an emergency as well as those who come in for a regular appointment and need a repair. Keep a set of forms at the front desk and in the clinic.

Collect the forms weekly and then analyze the problems and frequency found at the chair and the percentage of time required for those extra procedures. Discuss ways to reduce problems by modifying protocols. Evaluate product quality, improve patient and parent education and/or provide additional chairside training. Receptionists can be trained to offer over-the-phone solutions for some emergencies, preventing the need to come to the office.

When patients arrive with something loose, broken or poking, it is important to ask yourself, could this problem have been prevented? Could something have been done differently? Here are just a few examples of problems that could possibly be avoided with specific protocols.

**STRESS PROPER BONDING PROCEDURES**
Because proper bonding is a cornerstone of effective orthodontics, every clinical staff member should know proper bonding procedures and why each part of the procedure is critical to bracket retention throughout treatment. Shortcuts can lead to a loose bracket months down the line, making it difficult to link the action.

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**Patient Emergency / Repair Slip**

Date: ________________________________
Patient: ______________________________
Perceived Problem: ____________________
Patient Advised: □ Repair  □ Make Comfortable

Actual Problem: __________________________
□ Loose Bracket Type: ______
□ Metal □ Ceramic □ Gold □ Lingual
Adhesive on: □ Bracket □ Enamel □ Both
R 7 6 5 4 3 2 1 1 2 3 4 5 6 7
L 7 6 5 4 3 2 1 1 2 3 4 5 6 7
□ Loose Band
(Circle loose band. X loose bracket.)
□ Wire Poking □ Wire Broken □ Wire Slide
Wire Size and Type: _____________________
□ Loose/Broken/Bent/Lost Appliance Type: _____________
□ Other _______________________________________
Cause of Problem: _________________________
Last Assistant: _________ Today’s Assistant: ___________
Procedure Time: ____________________________

When the patient calls with a clinical problem, the receptionist completes the first four lines and attaches the form to the patient’s chart. When the patient arrives, the assistant completes the form. Or, when a problem is discovered chairside, the assistant completes the form and educates patients to call in advance with problems.

The patient is advised to make a repair appointment or come in to be made comfortable. It is ideal if the problem can be repaired in one appointment rather than two.

When the patient is seated, the form accompanies the treatment card. The chairsid assistant notes the actual problem, details and cause. This information isolates whether the patient contributed to the problem or if it is a clinic issue, which can be helpful in preventing emergencies. When the perceived problem and actual problem don’t match, the staff is alerted, prompting the need for additional patient/parent education.

Recording the procedure time identifies the amount of time required for various repairs or the time lost from production appointments.

When possible, the same assistant should see the patient and analyze the technique and communication methods, which identifies individuals who may require additional training.
to giving attention to detail during the bonding procedure and providing excellent patient education, check the patient’s bite after bonding to see if the patient is occluding on any of the brackets. I sometimes hear doctors say, “Just try not to bite down hard.” A few hours later the patient returns, complaining of a bracket being loose. Ideally, check the occlusion during diagnosis to determine if Bite Turbos or occlusal buildups are indicated so that the appointment time can reflect the amount of work required.

HOW TO HANDLE HI-TECH ARCHWIRES
Many orthodontists are now bonding brackets 7-7 and using lighter, more flexible archwires. These wires have a tendency to slide, irritating the patient. Crimpable stops can be used on the archwire to reduce sliding. Dimpled archwires can be used, although care must be taken to prevent the “V” bend from migrating into the bracket slot, causing tipping of the central incisors. Dimpled wires are used most effectively with self-ligating brackets. For those offices that band the terminal teeth, anneal and cinch wires to prevent sliding. (Of course, this would not be advocated in cases where you wish to increase arch length.)

PROMOTE PATIENT/PARENT EDUCATION
Good communication with your patients and parents starts at the beginning of treatment. The clinical team has a great opportunity to be educators to new patients. Remember that the words you use may sound like a foreign language. It may be the one-thousandth time you’ve said something this year, but it’s the first time they’ve heard it. Their confidence in the entire team will increase if you take the time to appropriately explain the appliances and their function. People learn best when they can see a visual, hear the explanation and then touch or even practice with the appliance. Prepare a hands-on show by letting them hold a band, bracket, wire, elastic or expander. Explain each part and how it works. Include a diagram to support what you say. Explain the importance of checking their braces everyday when they brush their teeth. If something becomes loose or broken, the patient can then be more precise about describing the problem. When the patient or parent calls the office, you can better schedule the repair visit.

REMEMBER THE MAKEUP OF YOUR AUDIENCE
Little Cindy Lou is sitting in the chair for her first delivery appointment. When you’ve finished, you look at her with great sincerity and give her a lengthy description of all the instructions she is supposed to follow. Can she realistically remember all that information? The attending assistant then flags down the parent in the waiting room and briefly describes some instructions. It is more effective to invite the parent and patient into the operator or patient education area so that both hear the same information at the same time, and whenever possible, divide the information into smaller, bite-size pieces. Some information can be given at the previous appointment followed with a question and answer review at the subsequent visit. You can make it fun by rewarding them for having the correct answers. Additional wooden nickels, ortho bucks or a coupon for a frozen yogurt can be a good incentive. Many offices also give well-written instructions for the family to refer to later.

SCHEDULE ONGOING STAFF TRAINING
I routinely see a common thread that runs through practices regardless of the size, location or age. That is how differently each assistant performs procedures. It is vital to the practice for every assistant to follow protocol for each procedure they perform, from preparing for bonding, to fitting bands, to how an archwire is tied in. To ensure continuity, it is important to review the protocols and confirm understanding. Monthly training sessions that include all employees, regardless of seniority, can be extremely valuable. More-seasoned staff members can work with the doctor to provide training so it stays interesting for them as well. Cover a different procedure every month throughout the year, and then at the beginning of the next year, start all over again. Continual training keeps the staff on track, aids in cross training and helps prevent emergencies.

These suggestions are just the beginning. Once you start to closely study the specific situations, you will be able to develop your own protocols to reduce procedures. Even after the initial study, statistics should still be kept to watch improvement over time.

This insight will provide answers for making each patient visit a productive, efficient and enjoyable experience for each patient and the entire team.
Through the course, you will learn:

- 20 Fundamental Principles of the Alexander Discipline that represent the foundation of Dr. Alexander’s practice methodology.
- The coordination of appropriate dentofacial orthopedics with specific archwire and elastics sequencing to meet dentofacial goals within predictable time frames.
- How A-D bracket design concepts, including their unique torque values, aid teeth in reaching ideal positions.
- Precision placement concepts.
- Retention mechanics that begin before brackets are removed, including the 5 causes of relapse and how achieving 10 specified treatment goals greatly improve the possibility of long-term stability.
- Treatment implications for long-term stability by examining published studies.

The Principles course is given near Dr. Alexander’s office in Arlington, Texas. You will spend an afternoon seeing his patients in various stages of treatment to observe the clinical application of the Discipline and witness first-hand the routine excellence of results achievable with consistent adherence to the principles.

Fees: $985 per orthodontist, $165 per staff member, $200 per graduate student. Limited attendance. 18 CE units.

To register, contact Ami Motsenbocker in Dr. Alexander’s office (817) 275-3233.

Adventures In Orthodontics
Palm Springs, CA • October 10–13, 2001

Let Drs. Jim Hilgers and Steve Tracey guide you on a remarkable odyssey that will change your orthodontic life.

Explore mechanics that virtually guarantee quality, on-time results. Unearth the lost secrets of staff enthusiasm and harmony. Discover the power of creating rich, sensory marketing experiences that will drive your patients wild. Uncover systems that will make a significant difference in your daily practice life. Fee: $2,740.

Get your passport. Call Suzie Gleason at (949) 830-4101. It’s a jungle out there! You’re gwanna need a bwana.
SOFT-TISSUE ANALYSIS FOR GROWTH AND MATURATION

The New Paradigm in Appearance-Driven Orthodontic Diagnosis & Treatment Planning

Dr. David Sarver, DMD, MS

SEPTEMBER 20 – 22, 2001
BIRMINGHAM, ALABAMA

The new millennium has brought us patients with increased expectations. They want to look great not only after treatment today but also 20, 30 and 40 years from now. We can no longer afford to focus exclusively on hard-tissue cephalometric treatment goals. This approach to treatment has historically resulted in many patients being treated to unfortunate facial outcomes.

Join Dr. David Sarver for an intensive 2 1/2-day seminar where you will learn to conduct in-depth dynamic soft-tissue evaluations that you will combine with conventional diagnostics of function and occlusion for a comprehensive approach to treatment planning that will serve your patients today and long into their future.

This course will introduce you to a systematic approach to diagnosis and treatment planning that is centered around the new paradigm that emphasizes soft-tissue considerations. It is designed in the same manner as your graduate school coursework. The concepts are anchored in research and documented in the literature, then supported by casework that demonstrates the concepts clinically.

Deadline for early registration fee of $1,800 is August 1, 2001. After August 1, course fee will be $1,900. Limited seating available, so register early.

To register, contact Lani Smith at Dr. Sarver’s office.
Phone: (205) 979-7072  Fax: (205) 979-7140
www.sarverortho.com

Improving Efficiency and Predictability with the Herbst...

If you have yet to discover the many clinical advantages that Herbst therapy can bring to your patients, or feel you would like to strengthen your knowledge to an intermediate level, you will be interested in this in-depth course. Join Dr. Larry Hutta who will share his clinical knowledge of this proven treatment option. This workshop includes in-depth, hands-on clinical experiences so that you and your staff can comfortably begin using the Herbst appliance. It also addresses in-progress issues to maximize efficiency and ensure a quality outcome.

The in-office course for doctors and key staff will feature:

• Justification for Clinical Use of the Herbst
• Case Selection Criteria
• Efficient Delivery: Aspects to Delegate to Staff
• Communicating the Value of the Herbst to the New Patient
• How to “Fabricate” In-House or Use an Outside Lab
• How to Integrate Fixed Appliances with the Herbst
• Appointment Sequencing
• Finishing Cases
• Hands-On Clinical Experience
• Fitting the Herbst on a Patient
• Troubleshooting Cases in Progress
• Removing the Herbst

October 5–6, 2001  Worthington, Ohio

Fees: $1,295 for doctors, $600 for staff*
12 CE units

To register, contact Jennifer Widows at Dr. Hutta’s office.
Phone: (614) 885-2000  Fax: (614) 885-2009
www.smilewithstyle.cc

*Must be accompanied by their doctor.
## inspire!™ Brackets

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### Ortho Solo™ Primer and Sealant

**Ortho Solo Kit – 740-0270**

Contains: Ortho Solo (four 5 ml bottles)
- Applicator Brushes (38)
- Disposable Wells (1 pkg)
- Laminated Technique Guide

**Ortho Solo Refill – 740-0271**

Contains: Ortho Solo (one 5 ml bottle)

### Titanium Orthos 2™ Brackets

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