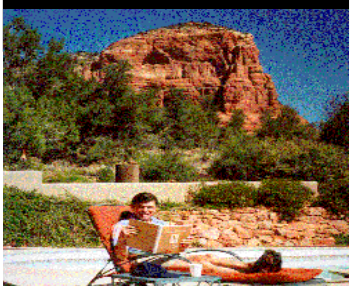
RICHARD PARKHOUSE SOAKS UP SUN AND THE NEW TIP-EDGE GUIDE DURING ROUND-UP IN SEDONA, PAGES 2 & 4.



TIP-EDGE TODAY®

Published Quarterly In The USA

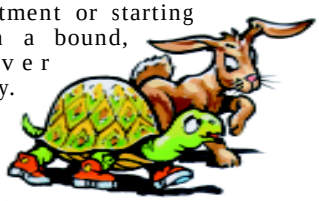
DR. PETER KESLING, LEFT REVIEWS THE MODELS OF DR. MARK PECHERSKY'S AWARD WINNING TIP-EDGE CASE AT THE LIGHT FORCE AMERICA MEETING IN PITTSBURGH, PA.

SUMMER 2000

EDGELINES

WHEN TO START SLOW OR FAST

There are indications for easing into treatment or starting with a bound, Cover Story.



Differential Tooth Movement Introduces New TIP-EDGE GUIDE

A canine on the cover does the "differential dance" while the reader soaks up Tip-Edge, Page 3.

2 3 1

ORTHODONTISTS TO BECOME INVISIBLE?

TIME magazine predicts orthodontists will disappear in 10-15 years, Page 4.

TIP-EDGE GRAPHIC

Tippy scores another hit—the C.A.T. bracket has been discontinued. This makes three he has outmaneuvered and there are still more in his sights.

COVER STORY

Active or Passive Treatment Starts

By Richard T. Conlin, D.D.S.—Pittsburgh, Pennsylvania

When Dr. P. Raymond Begg designed an appliance that would best open the bite and place the teeth over their natural apical base, he saw the necessity to use:

1. A friction free bracket.
2. A hard, resilient .016″ archwire.
3. Light elastic forces.

This became the standard.

With the new technology, more options became available and it has become possible to maintain the classical standards with different approaches. This paper discusses two basic options for starting a case, either active or passive. They are made possible with the introduction of nickel titanium archwire, and Tip-Edge brackets.

The Active Start

Because bite opening allows us to overcome occlusal interferences and "treat the case," we use a "balance of forces" consisting of sometimes deep anchor bends and light elastic forces. We temper this balance of forces according to the severity of the case. In stage one of a classic Class II Division 1 or Division 2 case there is an urgency to:

1. Open the bite and bring the anterior teeth edge-to-edge.
2. Retract the anterior teeth to safe positions.
3. Translate the mandible to a Class I position.

This will then require all of the "*activity*" we can muster—steep bite opening bends with 2 ounces of elastic force to be worn 24 hours a day. We are off and running in the classical manner.

Indications:

Active:

1. Class II, Division 1 or 2 cases.
2. Class I cases with excessive maxillary protrusions.
3. All deep bites.
4. Bimaxillary protrusions.

The Passive Start

In many cases there is no appreciable overjet nor overbite. The case is not very protrusive and the problems are mainly dental as opposed to skeletal. Some have adequate space available while others

Please see COVER STORY next page

An Active Case Start

Amber is a 14-year, 7-month, white female with a Class II Division 1 malocclusion.

Cephalometric Readings:

Wits	..... +6 mm
FMA	..... 29°
1-SN	..... 115°
T̄ Ā-Pō	..... +5 mm

All of the reasons were here for an "active start." At almost 15 years, A.D.'s growth was pretty much behind her and so it was necessary to capture, if possible, any residual growth in order to translate the mandible. In addition, both maxillary and mandibular anterior segments were beyond anterior limits and the bite was moderately closed. Our mission was to open, retract and translate immediately.

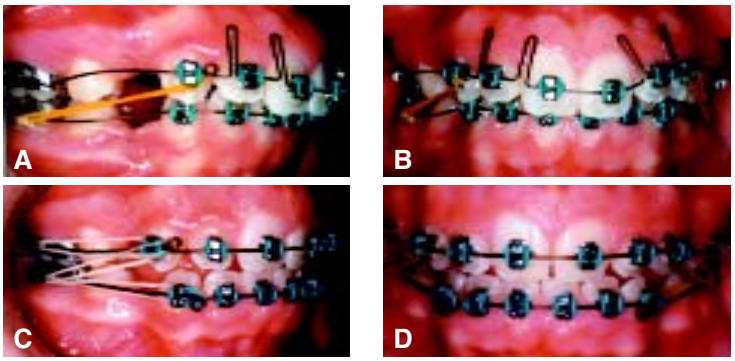


Figure 1, A-D.

Looped archwires (.016″) were selected with light (2-ounce) elastics to start, Figure 1A&B. These forces were continued until her teeth became edge-to-edge and stage two mechanics were started, Figure 1C&D.

COVER STORY

Active or Passive Treatment Starts . . . *Continued from page 1*

may be very crowded. In any case there seems to be no emergency nor urgency. Our objective in stage one is simply to:

1. Arrange the teeth in an acceptable manner so that we can proceed with the remaining stages of treatment.

Our requirements then are only passive. We can let the teeth "deadfall" or default to whatever positions are available over apical base. This requires only passive force with no bends in the archwire nor any elastic forces. This "passivity" will occur with very light, .012″ or .014″ nickel titanium archwires.

Indications
Passive:

1. Class I crowded cases.
2. Limited treatment cases —extraction or nonextraction.
3. Extremely crowded cases of any Class where proper engagement of hard resilient archwires is impossible or difficult.
4. Class III cases. Rationale: Passive mechanics will not alter the skeletal pattern and an active archwire can be placed with little difficulty following a short passive stage.

Conclusion

There is no substitute for an active archwire and elastics when treating the most difficult types of skeletal malocclusions and deep bites. The "active" start will produce quick bite opening and conditions for easier treatment.

In any case, where there is no urgency, the "passive" start will be easier for the operator and much more comfortable for the patient. It may, however, take longer to produce the desired result.

A Passive Case Start

Keith is a 13-year-old, white male with a very crowded Class I malocclusion.

Cephalometric Readings:

Wits	..... +1 mm
FMA	..... 26°
1-SN	..... 115°
1 A-Po	..... +1 mm

Since a Class I apical base does not require a growth potential and premolar extractions provided more than adequate space to unscramble the anterior teeth, there was no urgency. In addition, a looped archwire would be somewhat difficult in the mouth of this very active preteen. The mission is simple: achieve engagement wherever and whenever possible so as to position him for the next stage (two) of treatment.

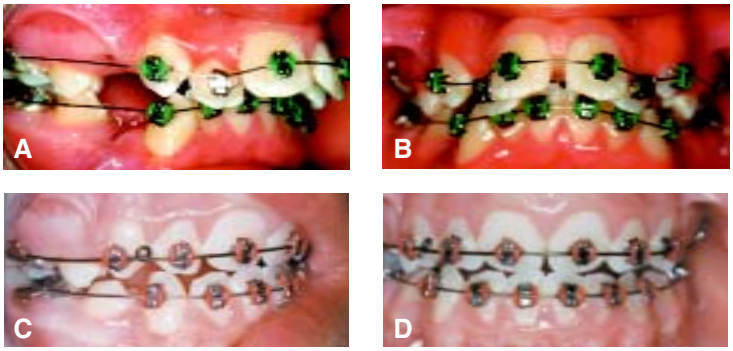


Figure 2, A-D.
Nickel titanium archwires (.014″) were placed, engaging wherever possible, Figure 2A&B and after one appointment, 5 weeks, full engagement was possible. Ten months later a maxillary .022″ and mandibular .016″ stainless steel archwires are in place. Note both the maxillary and mandibular anterior teeth have been retracted and the extraction spaces closed from light, Class II elastic forces only, Figure 2C&D.

Editor's Note: Dr. Conlin has promised to send the final records of both cases for publication in a future issue of *Tip-Edge Today*.

Q's and A's

Q. *I have a bimaxillary protrusion case in which the four first premolars were extracted. The anterior teeth have aligned but seem to be more flared as they moved edge-to-edge. Is this a problem. I am afraid to retract all the anterior teeth at once because I don't want to "blow" anchorage. Should I begin retracting the canines?*

Thibodaux, Louisiana

A. From your question it is apparent that you are moving into Tip-Edge with an edgewise background. You must realize that ordinary edgewise archwire slots (either zero-zero or preadjusted) function as buccal tubes and turn the very teeth to be retracted into anchor teeth. The Tip-Edge archwire slots permit the teeth to tip. This allows retraction of six anterior teeth without significant anchorage loss.

You should place .022″ archwires through the occlusal tubes and apply 3 ounce E-Links® from the canine circles to the molars. The patient should wear intermaxillary elastics (2 to 3 ounces) as necessary to keep the anterior teeth edge-to-edge as the spaces close. Refer to the Stage Two Section of the TIP-EDGE GUIDE.

The Best of Quotes From the Tip-Edge Uninformed

The following statement was made by Dr. Robert C. L. Sachdeva in an interview with Dr. Larry White, Editor in the April 2000 Journal of Clinical Orthodontics.

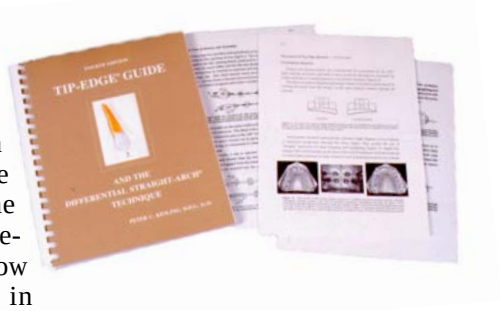
"Furthermore, fear of placing excessive forces on the dentition and causing brackets to debond are issues that deter the orthodontist from using full-size wires."

Dr. Sachdeva needs to be informed that since Tip-Edge archwire slots effectively increase in size, the orthodontists who use them are not deterred from placing full-size (even rectangular) archwires. There is no excessive force that could cause debonds or discomfort.

Fourth Edition Of Tip-Edge Guide

Dr. Peter Kesling recently completed a new fourth edition of the TIP-EDGE GUIDE. Originally published in 1988, the Guide has undergone six printings through four editions.

As compared to the third edition which originally appeared in 1996, the fourth has 263 pages with many changes and additions. There are four new Case Reports, additional reprints of articles from TIP-EDGE TODAY and more Questions and Answers.



To keep abreast of changing technology and increased awareness of differential tooth movement with Tip-Edge brackets, the objectives of stages one and two have been reshuffled. There are now only three objectives in stage one but seven in stage two.

The use of Torque Bars has been modified for more action and their application clarified through new illustrations. Outrigger® Appliances, the answer to elastic noncompliance, are covered as well as the use of the new identification of elastics by their Tru-Force® values.

Anyone using Tip-Edge in their practice should have this fourth edition in their library. Careful reading can serve as both a review and an advanced course. A canine on the cover continually exhibits differential tooth movement through the magic of lenticular action—no batteries required!

Torque Bars—Increasing Their Effectiveness and Ease of Placement

After over ten years of experience with nickel titanium Torque Bars and Deep Grooves, much has been learned about their use and indications.

Of most importance is the fact that Torque Bars are more effective (deliver a higher rate of torque) if they are extended through the canine brackets.

When the Bar passes distal to the canine brackets, the ends should be rounded and reduced in size to facilitate engagement in the canine archwire slot along with the main archwire, Figure 1A.

Secondarily, whichever tooth supports the end of a Torque Bar—canine or lateral incisor, should also receive a Side-Winder spring.

Springs are indicated at the ends of Torque Bars because the gingivally directed forces can cause the roots to move mesially.

To ensure positive engagement of the Torque Bar, it can be ligated with steel ligatures into the central incisor brackets while the ends of the Bar are resting passively in the gingival direction. Small pieces of Bump-R-Sleeve® Tubing (.018″ I.D.) can be slipped over the ends to provide patient comfort, Figure 2.

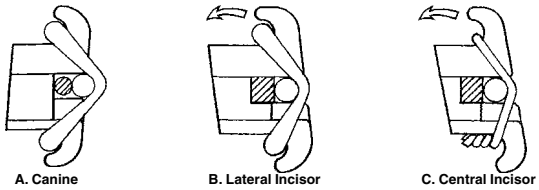


Figure 1, A-C. A) End of Torque Bar is rounded and lies lingual to main wire in the canine bracket (Side-Winder spring deleted for clarity), **B)** Torque Bar in Deep Groove behind main wire in lateral incisor bracket, and **C)** Bar and main archwire held in central incisor bracket by a steel ligature tie.[1]

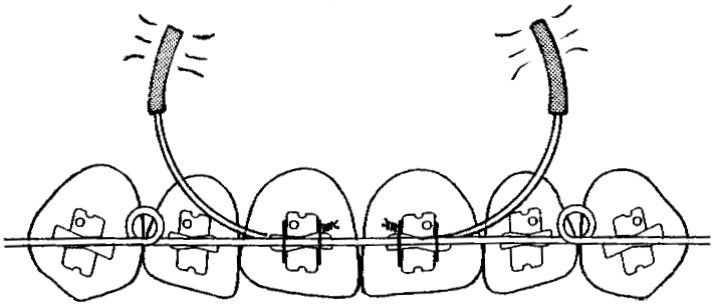


Figure 2. To help ensure proper engagement of 30° Torque Bar, it can be ligated into the Deep Grooves of the central incisors along with the main archwire. Ends rest passively in gingival direction covered with sections of Bump-R-Sleeve. No Side-Winders are required on the central and lateral incisors when the Bar extends distal to canines. Remember, red end of Bar goes to the right side.

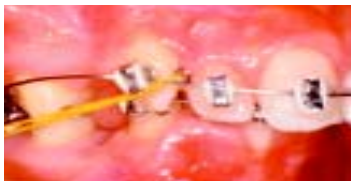
Torque Bars are indicated whenever the .022″ round archwires can be used in stage three. This would include cases that do not require torque of canines, premolars or molars. Bars can also torque more rapidly than Side-Winder springs against rectangular wire because torque forces are applied immediately. With Side-Winder springs, the initial forces are only second order (distal root uprighting) until the slots begin to close against upper and lower surfaces of the rectangular archwire.

Reference

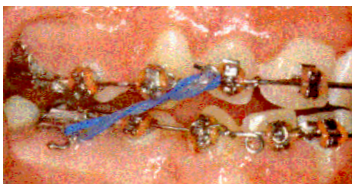
1. Tip-Edge Guide, Fourth Edition, 2000, PC Kesling; p. S3 Round-7.

CASE REPORT

An eleven-year-old boy presented with a severe Class II malocclusion. The overjet was 10 millimeters and the crowded mandibular incisors were one millimeter ahead of the A-Po line. The remaining deciduous teeth and four first premolars were extracted. Treatment began one year later after the maxillary canines had erupted.

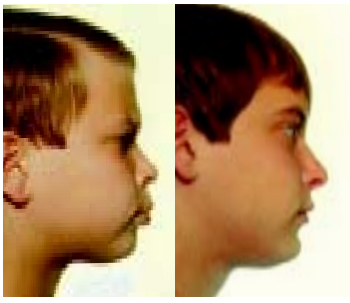


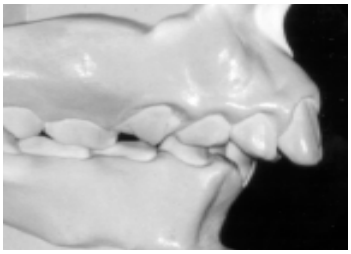
Four first molar bands, twelve anterior brackets and two high tensile, preformed .016″ archwires placed at the first appointment. Chair time: 1 hour and 10 minutes—a classic start with 2½ ounce Class II elastics.

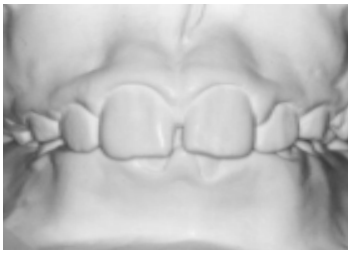


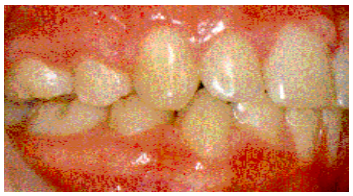
Twelve months into treatment round wire (.022″) stage three began with a 30-degree Torque Bar to address the major maxillary torquing requirements. Three ounce, Class II elastics were worn to maintain overjet correction.

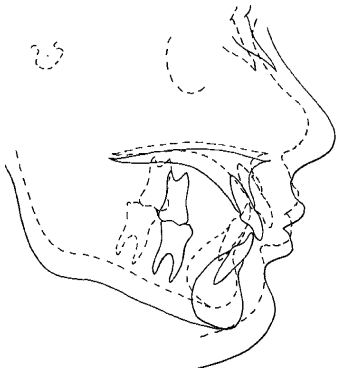
After eight months a maxillary .0215″ x .028″ archwire and Side-Winder springs were placed to finish with rectangular stage three mechanics, including torquing of the maxillary molars.











M.W. ..... Male, 12 Years
Extraction U44, L44
Archwires Used 7 (4U, 3L)
Adjustments 18
Treatment Time ..... 27 Months
Retention ..... Perfector Mandibular 3-to-3

Cephalometric Changes:

	Start-Dotted	Finish-Solid
1 A-Po	+1.0 mm	+1.5 mm
Wits	+2.5 mm	–2.0 mm
SN-MP	33.0°	29.5°
SNA	85.5°	79.0°
SNB	78.0°	76.0°
ANB	7.0°	3.0°
1-SN	105.0°	101.5°

Orthodontic Round-Up

On May 4-6, orthodontists from around the globe attended the *Orthodontic Round-Up* in beautiful Sedona, Arizona. It was an event enjoyed by all. World-renowned clinicians and lecturers individually provided an excellent educational program with a diversity of topics and interesting material.

Topics discussed included facial aesthetics in extraction versus nonextraction treatment, TMJ—separating myths from reality and protecting your practice from the legal implications of TMJ incidences, maximizing efficiency with Tip-Edge treatment, and building your practice with aesthetic brackets.

The social events were equally interesting, with jeep tours in the Red Rock Mountains, golf outings and an exclusive sunset dinner overlooking the Grand Canyon. Doctors witnessed one of the "most uniquely beautiful sites on earth" and were treated with the hospitality that only TP Orthodontics provides!

A few of the speakers and participants at the TP Round-Up in Sedona, Arizona. From left to right: Drs. Richard Parkhouse, Fernando De Abreu Pereira, Jay Bowman, Ricardo Medellin and Mike Matson.

Completion of Tip-Edge Training

Students from the Netherlands receive their certificates, April 2000. These doctors have completed a two-year program in diagnosis and treatment planning utilizing the Tip-Edge appliance. They are pictured here with Drs. William McCoy (left) and Steve Gouw (Center).

Time Magazine Predicts Disappearance of Orthodontists

In the May 22, 2000 issue of TIME MAGAZINE, orthodontists are listed number six on a list of ten jobs/occupations that will disappear in the next 10 to 15 years due to technology changes. They claim there will be no more "metal mouths" because 3-D simulation programs will be cranking out disposable "aligners."

Obviously this opinion was fostered by the efforts of Align Technology of California, the promoters of the Invisalign System™ of clear plastic aligners. Anyone with a few years of orthodontic practice under their belt and experience with tooth positioners and/or retainers knows they are dead wrong.

TIP-EDGE TODAY predicts orthodontists will remain, and Align Technology may disappear along with the time and/or money spent trying to accomplish tooth movements beyond the abilities of the "aligner," an appliance originally created only for retention.

From South Africa call or fax
Tel +27 11 392 5125
Fax +27 11 974 2160

From Australia call or fax
Tel +61 3 9342 3200
Fax +61 3 9349 4772

100 Center Plaza
LaPorte, Indiana 46350
Tel 219-785-2591
Fax 219-324-3029

Visit us online:
www.tip-edge.com

PRESORTED
STANDARD
US POSTAGE PAID
LAPORTE IN
PERMIT NO 79