"The Hollywood Smile"[1]

By Michael Montanaro, DDS

Orthodontics has always had a dichotomy of thought regarding extraction of bicuspids versus non-extraction of bicuspids dating back to Dr.Angle and Dr. Tweed. Dr.Tweed showed 100 cases treated by extraction technique at the 1940 American Association of Orthodontics meeting creating a thesis that extraction is a panacea.

The University of Illinois and Dr. Allan Brodie have always held non-extraction "4th Dimension"[2] orthodontics is superior. Dr. Andrew Haas and Dr. Robert Ricketts, both University of Illinois orthodontic department graduates, are proponents of non-extraction. They had appliance differences, but they were united on treatment philosophy--- non extraction is best. My premise is non-extraction alone is not the treatment goal enough for all cases, unless coupled with an arch width assessment based solely on art of the smile. *Even non-extraction results will not look terrific,* unless this art of smile width is incorporated into our treatment goal.

What is the art of the smile? It is a wide arch form with no buccal dark corridors, central incisors that do not look large relative to the dental arch width, and lateral incisors that reflect maximum light at the viewer a lateral angle of 30 degrees or less. I would suggest the clinician view the patient in a smiling position and make a determination of arch size relative to the above mentioned factors.

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[1] This lecture thesis was given in 1988 at the University of Illinois Orthodontic Department quadrennial meeting by Michael Montanaro in Chicago, Illinois.

[2] 4th dimension article by Allan Brody published in the 1930's

Today, Dr. Damon tries to market an age old idea of non extraction with the use of reduced friction brackets. Didn't single width brackets that preceded twin brackets have reduced friction too? Dr. Damon's idea is not new, but new to some orthodontists. I am not a proponent of Damon's appliance as being the panacea, in fact, his non extraction thought process is flawed in that he implements his treatment with a high risk of failure due to only using dento-alveolar expansion. Non-extraction procedure is a great idea, if coupled with Haas palatal expansion which increases the apical bone width and simultaneously increases the muscle drape. (buccinator and one head of the masseter muscle) [Figure 1] thus, creating a high degree of stability due to decreased potential for relapse. Damon's expansion pushes into the muscular drape increasing relapse potential.

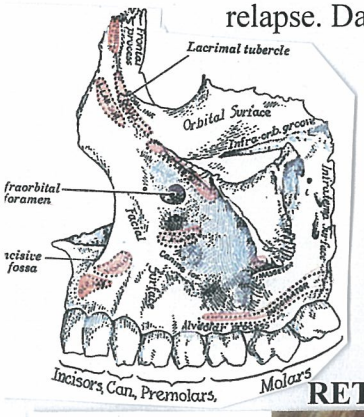
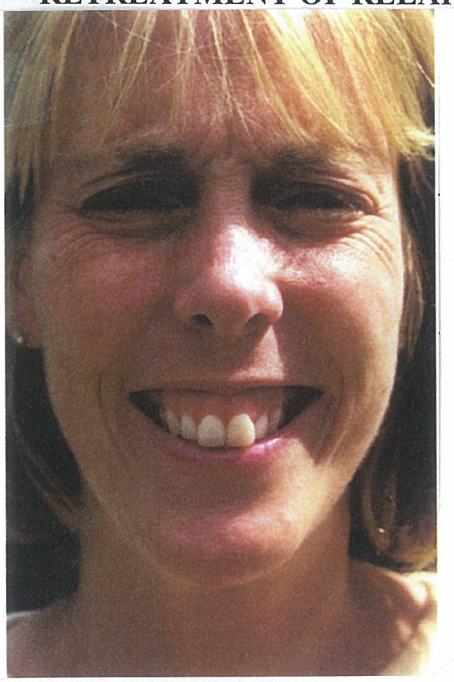
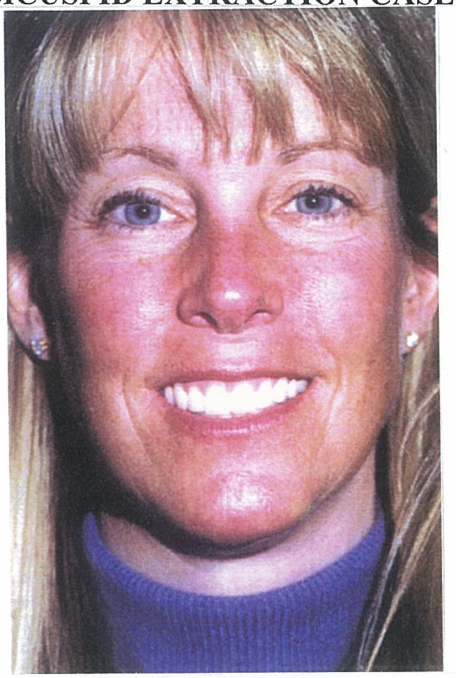


Figure 1

CASE I

RETREATMENT OF RELAPSED 4 BICUSPID EXTRACTION CASE





Case I: This patient presented to my office after having been treated 4 bicuspid extractions in Greenwich, CT because she saw what I had done for her niece with palatal expansion. She preferred a better, wider smile.

You can see that even though 4 bicuspids were removed previously, the arch collapsed making her centrals look even larger. Four bicuspid extraction itself tends to make arch form smaller and centrals look larger, but did not stop further collapse and relapse. Also, lateral incisors reflect very little light to the viewer.

Mothers who come to your office might say, "My child has large centrals". Do they? Or is the converse true? The arch form is small!! Should we expand without any cross bite for cosmetic reasons? I think, yes.

Treatment RX:

(A) Expand upper apical base and lower mandibular alveolus

(B) Set up for surgical maxillary impaction to reduce gummy smile and lip incompetence.[3]

Result: A pleasing wide full cosmetic smile even though 4 bicuspids were previously removed by another orthodontic philosophy.

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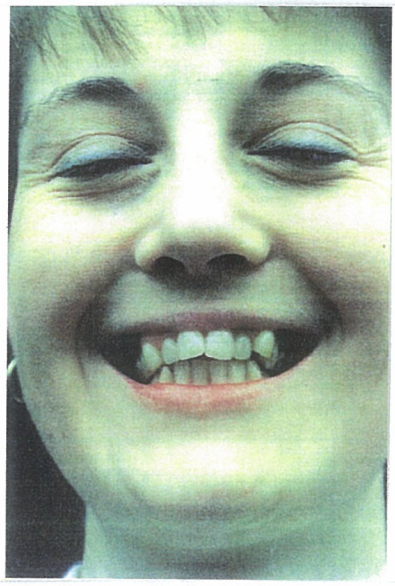
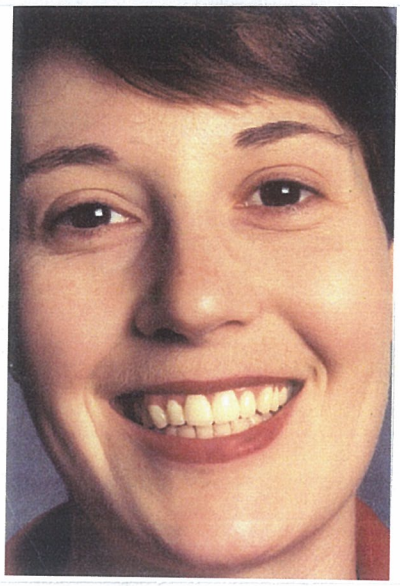
[3] This surgery was performed by Dr. Ralph Szilagy of Westport, Connecticut.

CASE II

ADULT CROWDING UPPER AND LOWER





Case II: An adult with class II upper and lower crowding presented for treatment. If 4 bicuspid extraction was followed, surely this would create straight teeth but not this artistic smile without large dark buccal vestibules. Centrals that will look too large relative to the arch size proportion will also occur if 4 bicuspids extraction philosophy was followed.

What should take precedent over our orthodontic treatment goals in this case?

(A) Some left side brain calculations that say quantum ideal cephalometric numbers must be met for stability and health of teeth, or

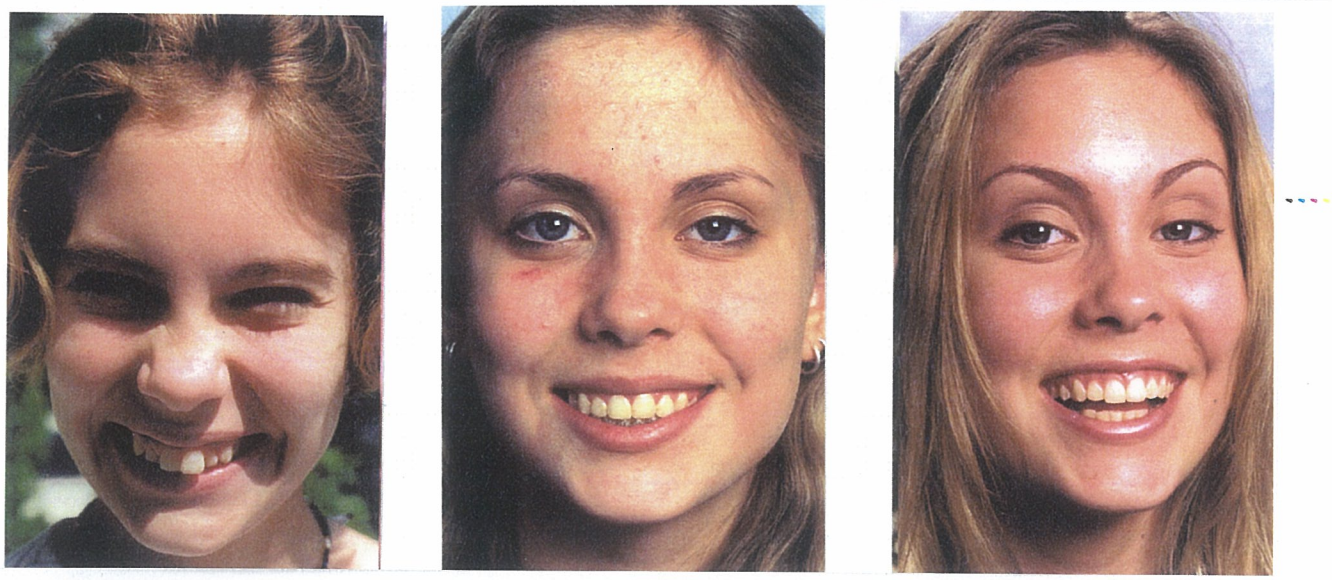
(B) Artistic goals more driven by the right side brain quest for better art of the smile upon visual inspection of the patient, or

(C) some biological axiom that says never expand the maxilla in an adult because the maxillary sutures will not open.

Remember, Dr. Angle defined orthodontics as an art and science in early 1900's. It still is an art and as such demands an artist's thought as well as a blending of today's biological axioms. I believe *art* should take at least 51% of the decision making power we use to diagnosis.

CASE III

A 12 YEAR OLD CHILD WITH LARGE LOOKING CENTRALS



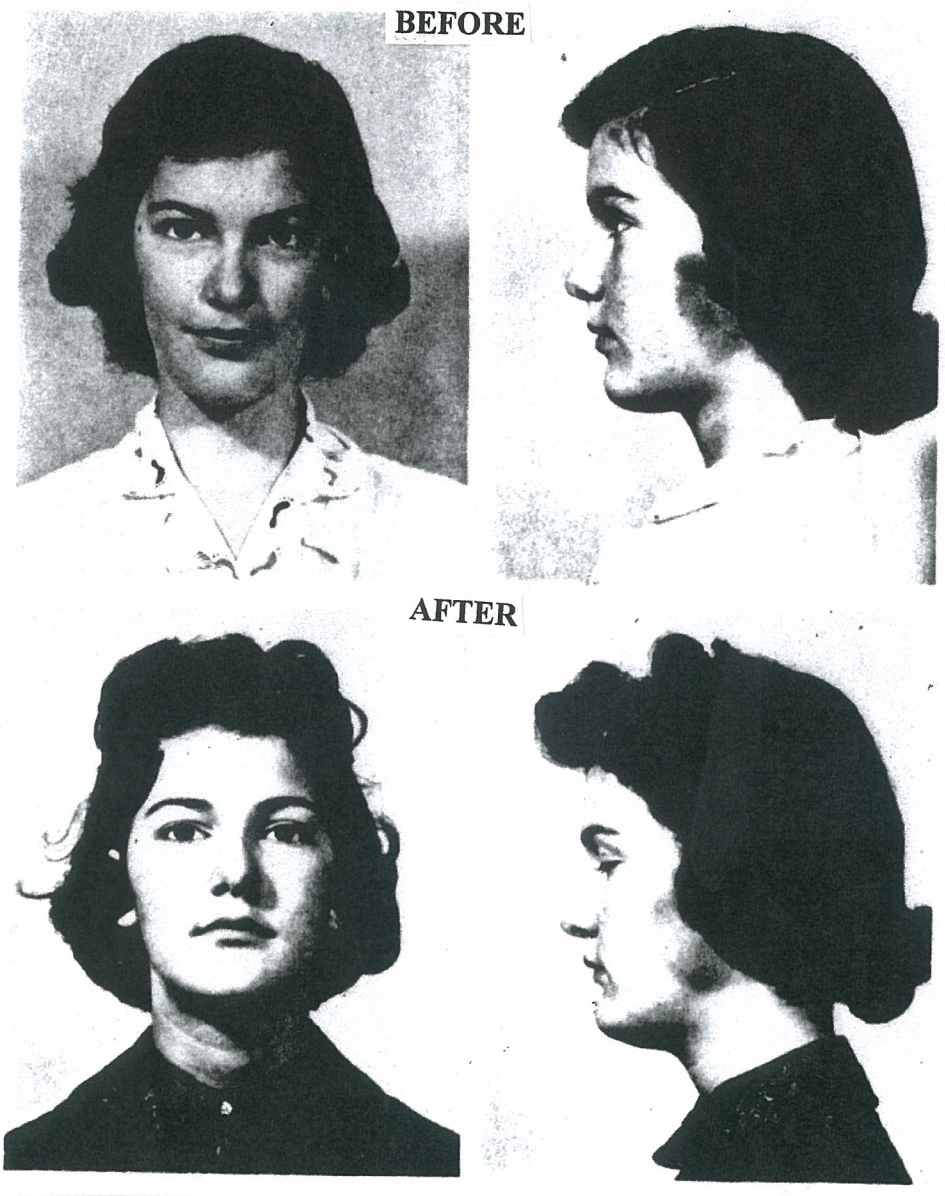
Case III: A 12 year old child with large looking centrals, crowded upper and lower arches presented for treatment.

Treatment RX: After the use of a Haas maxillary expansion for increased arch length, increased apical bone base and a wider Hollywood non extraction smile, it looks marvelous. Would you want this type of orthodontic philosophy, or Dr. Tweed's working on your child?

CASE IV

REPRINTED FROM 1961 "ANGLE ORTHODONTIST" PAGE 163, BY HOWARD BUCKNER

This case shows four bicuspid extractions may destroy a good profile.



While I was at the University of Illinois, I had the good fortune to have Dr. Haas fly in from Ohio each month to spend a day with the students. He called this article in the

Angle Orthodontist, 1961, by Howard Buckner, to our attention about the devastating results of 4 bicuspid extractions on some profiles. (See Case IV photos)

S. Jack Burrow, of the University of North Carolina, recently quotes this in his March 2008 AJO article "Smith and Ginelly who also concluded that there is no difference in smile esthetics when extraction and non extraction patients are compared." I don't know what they are comparing, but perhaps they are prejudice about what they see or are trying to justify extractions as a winning situation. Face it! Non extraction cases are usually better aesthetically and non extraction Hollywood Smile aesthetics might be even better in some cases. By this I mean, if the patient has less than full wide arch forms upon visual inspection of the smile, then please widen for the *sheer art* of it.

Non-extraction alone will *not always* give you a beautiful smile because even some non-extraction cases must incorporate expansion for the sheer art of the smile. Without incorporating this *art of the smile* characteristic, a non-extraction case may fail artistically because it may have dark buccal vestibules, or a poor balance between arch width and maxillary central size, even though this non-extraction procedure was followed.

I believe the Hollywood Smile philosophy goes beyond extraction profile problems to full frontal improvement of smiles with well related balanced arch size to maxillary centrals, and reduced buccal vestibule darkness and a fuller non-aged face due to preventing mid-face collapse resulting from 4 bicuspid extraction. Any pre-pubertal extractions will create more mid face collapse after late growth changes of the nose and/or chin. Remember, a prepubescent child's mid face balance will change after late

growth development, especially after 4 bicuspid extraction, thus flattening the non extraction profile too. Face it! Non extraction alone will not always give you a great aesthetics unless combined with arch width increase when needed for a Hollywood Smile.

Should smile art control the orthodontist? Should fear of mandibular relapse control us? Should some biological cephalometric statistical calculations of normal control us?

If you are by education an extractionist, perhaps no one will change you . If you are educated in non extraction perhaps nothing will change you.

In addressing the apprehensiveness of extraction orthodontists who still say lower crowding occurs if you do not extract, please read March 2008 AJO article editor's choice page 11A. In it, Eslambolchi , Woodside, and Roscow say untreated and treated subjects have similar long term mandibular incisor irregularities occurring well into seventh decades of life. This means long or permanent retention of lower anteriors is necessary for total life success.

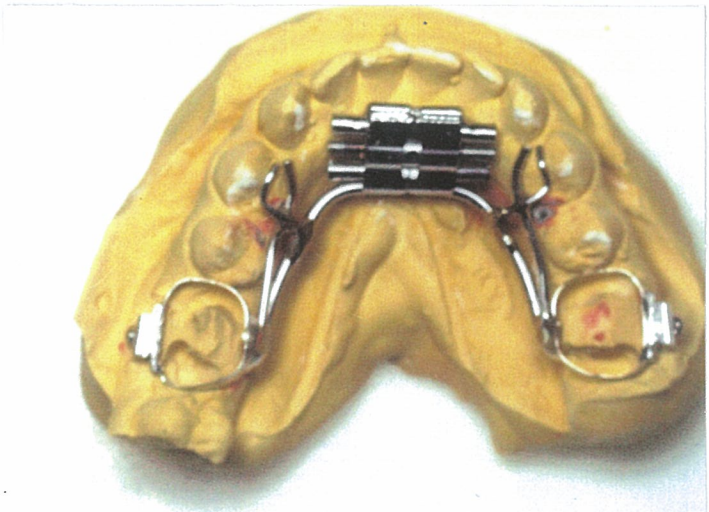
In summary, straight teeth does not equal a beautiful smile. The orthodontic quality of a ***smile*** is in the beauty of the result, not the mythical "Jack in the beanstalk" goal of following magical two dimensional cephalometric numbers, ***just for straight teeth***. Examine your patients' smile, and assess the beauty or possibly use 3 dimensional cephalometric numbers or 3 dimensional visual assessments with special attention to jaw width relative to maxillary central size and buccal vestibule darkness. This will lead you to a *"Hollywood Smile"* which will need at least as much retention as any untreated case.

MATERIALS AND METHODS TO OBTAIN A HOLLYWOOD SMILE

Phase I – For growing children, treatment with *modified* Haas palatal expansion (never banding bicuspids and turning the expander slowly 2-3 turns per week) and the use of mandibular expansion using a fixed lower expansion appliance (FLEA) from Summit Orthodontic Laboratories. Notice how the *modified* Haas palatal expander has solder reinforcing the lingual bar preventing the palatal acrylic from impinging on the patient and gaining maximum skeletal apical based change.

MODIFIED HAAS PALATE EXPANDER

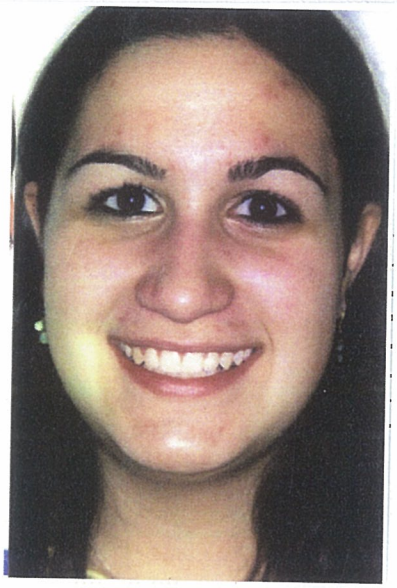
FLEA



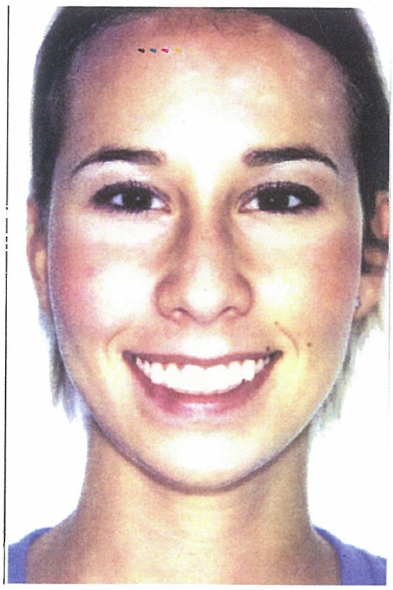
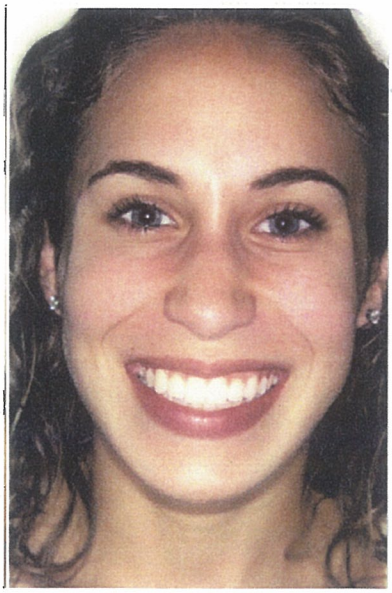
IMPROPER HAAS PALATAL EXPANDER WILL FAIL

Phase II – Full classical edgewise orthodontics that may include a second round of expansion.

These smiles are typical *"Hollywood Smile"* results having had one or more expanders for the *sheer art of the smile*.





more " Hollywood Smiles"