

Among all people, the most striking differences are in the face

Orthodontists today use pre-adjusted appliances that are derived from Caucasian norms. When treating Latin-Hispanic patients with straight wire appliances, the clinician must increase the torque values for both the upper and lower incisors and decrease the angulation values in order to achieve an optimal interincisal angle and functional occlusion. The ProTorque system offers a more natural position of the anterior teeth to bone and to each other, which affects the facial profile and most importantly, the stability of the finished orthodontic case.

DENTAL AND FACIAL AESTHETICS

Improve
FUNCTION
STABILITY

The relationship between the nose, lips, and chin is one of the most important considerations in diagnosis and treatment planning. Moving the anterior teeth in any direction will affect the position of the lips and overall facial balance.

Evidence-Based Orthodontics

Dr. Raymond Sugiyama and Dr. Mauricio Gonzalez Balut have conducted extensive research into the rationale for a bracket prescription different from standard prescriptions which are derived from measurements of Caucasians. Evidence-based data shows statistically significant differences in the dental anatomy and cephalometric measurements when comparing Caucasians to other ethnic patients. For example, studies show that the interincisal angle of Asian, Black, and Latin-Hispanic patients ranges from 10 - 16.6 degrees less when compared to Caucasians^{1,5}. This is the result of the increased proclination of the upper and lower incisors relative to basal bones in these groups. This fact suggests the need for more torque in the anterior teeth for this group of patients.



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Dr. Mauricio Gonzalez Balut, D.D.S., M.S. received his Dental Degree from the Intercontinental University in Mexico City and his Master's Degree in orthodontics from Loma Linda University. He is on the teaching staff at Intercontinental University and Universidad Autonoma in Mexico City and also at universities in Juarez, Merida, Monterrey and Puebla. He maintains a busy practice in Mexico City.

All teeth of Asians and Latin-Hispanics are wider mesio-distally than Caucasians' teeth³. Wider teeth need less angulation. This fact is shown in studies by Motegi in Japan⁴. The ProTorque prescription is ideally suited for Asian, Black, and Latin-Hispanic patients and also patients with Division 2 type malocclusions. The added torque keeps the roots in the middle of the basal bone and helps to maintain the natural fullness of the lips in this group of patients.

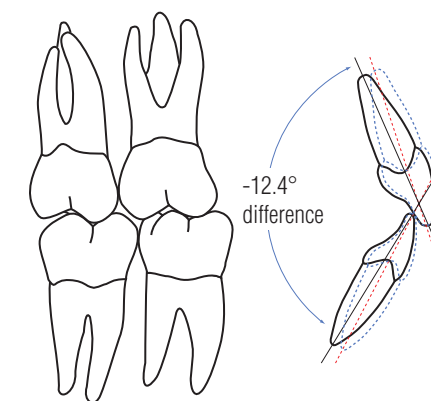
CEPHALOMETRIC COMPARISONS

	Hispanic Averages <small>Doddoli, Gonzalez, UIC, UAT, UPAEP</small>	Caucasian Averages <small>Broadbent, Fastlicht, Graber, Riolo, Swartz</small>	Difference
¹ U1-PP =	115.0°	110.0°	+5.0°
L1-MP =	95.0°	91.0°	+4.0°
U1-L1 =	121.6°	134.0°	-12.4°
² L1-FH =	115.1°	111.0°	+4.1°
U1-APo =	8.4	3.5	+4.9 mm
L1-APo =	4.7	1.0	+3.7 mm

REFERENCES

- Fastlicht, J: "Tetragon, A Visual Cephalometric Analysis". JCO, June 2000
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- a. Yonezu et al: World Journal of Orthodontics: Vol. 2, November 2001
b. Personal study by Dr. Raymond Sugiyama
- Etsuko Sebata-Motegi: Shikwa Gaku, 1981
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People of various ethnicity show differences in hair, skin and eye color as well as other physical and structural anatomy. The orthodontist must recognize and respect these differences by placing the teeth in their natural position related to basal bone and to each other. The ProTorque prescription offers patients the advantages of an appliance that will maximize their dental and facial aesthetics and enhance their chances for long term stability by placing teeth in a more natural and functional position than Caucasian based straight wire systems.

LATIN / HISPANIC PRESCRIPTION
ProTorqueTM

MINI MASTER SERIES

The ProTorque System - Latin/Hispanic Prescription

Maxillary	Torq	Ang	Rot	M-D	R/L	.018		.022	
						No hook	With hook	No hook	With hook
Central	+24	+3	0	.140	R L	310-2001 310-2002		310-2021 310-2022	
Lateral	+18	+6	0	.115	R L	310-2003 310-2004		310-2023 310-2024	
Cuspid	+8	+9	5	Hook D-G	R L	310-2005 310-2006	310-2005B 310-2006B	310-2025 310-2026	310-2025B 310-2026B
1st Bicuspid	-6	0	0	HGW, hook D-G	R L	310-2007 310-2007	310-2104B 310-2105B	310-2027 310-2027	310-2114B 310-2115B
2nd Bicuspid	-6	0	0	On raised pad, hook D-G	R L	310-8207 310-8207	310-8208B 310-8209B	310-8227 310-8227	310-8228B 310-8229B
Mandibular									
Anteriors	+3	0	0	Bevel occlusal	R/L	310-2010		310-2030	
Cuspid	-5	+5	5	Hook D-G	R L	310-2008 310-2009	310-2008B 310-2009B	310-2028 310-2029	310-2028B 310-2029B
1st Bicuspid	-12	+2	0	HGW, hook D-G	R L	310-2011 310-2012	310-2011B 310-2012B	310-2031 310-2032	310-2031B 310-2032B
2nd Bicuspid	-17	+2	0	HGW, hook D-G	R L	310-2013 310-2014	310-2013B 310-2014B	310-2033 310-2034	310-2033B 310-2034B

BRACKET ID
Color coded by quadrant

● ●
● ●

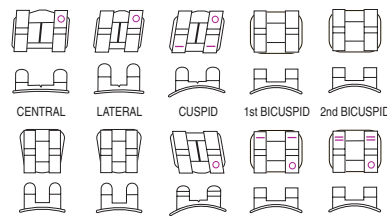
HGW: high gingival wing
D-G: distal/gingival
M-G: mesial/gingival
VS: vertical slot

OFFSET BICUSPID OPTIONS: Gingivally offset bicuspid brackets offer a larger bonding base covering more area on the occlusal one third of the buccal surface and increasing bond strength.

PERMANENT MARKS

Maxillary Central, lateral - dimple D-G
Cuspid - ID line occlusal and dimple D-G

Mandibular Cuspid - dimple D-G
1st bicuspid - ID line occlusal and dimple D-G
1st bicuspid with hook - "-"
2nd bicuspid - 2 ID lines occlusal and dimple D-G
2nd bicuspid with hook - "="



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ProTorque™