



Not A Full Mouth Rehabilitation Course; Treating the Full Mouth Case with Much Less Than a Full Mouth...Opening VDO Using Direct Composite, Adhesive Dentistry and Limited Implants & RPD. By Dr. Jose-Luis Ruiz

Traditional Approach To Full Mouth?

- Full mouth Rehabilitations are traditionally destructive.
- Seeking the perfect mouth leads to over treatment and the cost (not financial) is usually worst than the disease.
- Most cases can be treated with limited treatment or in stages.



Lecture Objectives:

- Discuss a more conservative approach to treating severely damaged and partially edentulous dentitions.
- How to organize a treatment in stages.
- How to avoid failure
- When and How to open a vertical dimension case.
- Principles for using direct composite, bonding, etc for full mouth rehabilitations.

Natural Steps Needed for a Building or Remodeling

1. Head Builder
2. Initial test & communication
3. Use of good engineering principles
4. Final approval and funding Good drawings & models easy to follow
5. Accurate excursion
6. Reach final results (final walk through)
7. Proper maintenance

Diagnosis, Design & Communication

Team Driven NP Visit:

- Dental history

J. LUIS RUIZ, DDS & ASSOCIATES, INC.					
DENTAL HISTORY FORM					
PATIENT NAME:		(PREFERRED):	DATE:		
Please describe the primary reason for your visit (concerns):					
1. _____					
2. _____					
3. _____					
4. How long has this been going on and what would you like done?					

5. If you could rate your smile from 1 - 10, what would it be? _____					
6. Would you like to improve your smile? Y N How? _____					

Have you ever suffered from, or been told you may have any of the following?					
7. Gum disease	Y	N	11. Malocclusion	Y	N
8. Bruxism or Grinding	Y	N	12. Bad Breath	Y	N
9. Jaw pain or TMJ	Y	N	13. Headaches or Migrains	Y	N
10. Dental pain	Y	N			
DOCTOR'S NOTES: _____					

Occlusal & TMJ Analysis

When is Occlusion Important?

When signs or symptoms of OD are evident

When extensive restorative Dentistry is being planned!!!

Important... Why So Ignored?

- No Available Practical Occlusal Education"... Occlusion education is for "full mouth rehabilitation"
- "Joint Disease" & Occlusion mixed together.
- It is made to be too complicated.
- Population not educated about OD

How To Diagnose & Implement OD?

New Paradigm in Health Care

“Occlusal Disease Diagnosis System”

- Stage 1 Initial Occlusal Evaluation (all patients)
 - Stage 2 Occlusal and TMJ Examination (as needed and accepted by patients)
 - Stage 3 TMJ Examination or Referral to local expert
-
-

7 Signs and Symptoms of Occlusal Disease

- **Pathological tooth wear, chipping or fractures**

Ratcliff S, Becker IM. et al. Type and Incidence of Cracks in Posterior Teeth.
J Prost Dent: 2001;86:168

- **Tooth hypersensitivity**

Coleman TA, Grippo JO, et al. Cervical dentin hypersensitivity. Part III: Resolution following occlusal equilibration.
Quintessence Int 2003;34:427-434

- **Tooth hypermobility**

Greenstein G, Greenstein B, Cavallaro J. Prerequisite for treatment planning implant dentistry: Periodontal prognostication of compromised teeth. 2007 Compendium 28(8):436-447

- **Fremitus**

- **Abfractions**

Grippo JO, Abfractions: A new classification of hard tissue lesions of the teeth. J Esthet Dent 1991 Jan-Feb;3(1):14-9

- **Severe localized bone destruction (secondary to periodontal disease)**

Harrel SK, Nunn ME, Hallmon WW. Is there an association between occlusion... Yes, occlusal forces can contribute to periodontal destruction. JADA; 2006; 137 (10): 1380-1392

- **Muscle pain and TMJ pain.**

- T Gremillion HA. The relationship between occlusion and TMD: An evidence-based discussion.
 - J Evid Dent Pract 2006;6:43-47
-

Patients Choose Direction

(Stage 2) The Record Taking Visit

Purpose:

- To gather necessary information for final diagnosis.
- Permits an opportunity for communication of goals and limitations.
- Has 2 components...the occlusal portion (function), esthetic portion

Record Needed on second visit

1. Photos
2. Panorex
3. High Quality Cast
4. Face Bow
- 5 a). Lucia jig
- 5 b) Patient Fill Occlusion & TMJ Form

Esthetic Component:

DENTO-FACIAL ESTHETIC DIAGNOSIS FORM			
Patient Name:		Date:	PT Self Smile Score:
PATIENT'S MAIN CONCERNS		INTERNAL TO	
1.		Endo:	
2.		Perio:	
3.		Ortho:	
4.		OS:	
Pt. Esthetic Expectations:		TMJ:	
1. DENTO-FACIAL ESTHETICS		DIAGNOSIS / ETIOLOGY	
		Occ/TMJ:	
1) Doc. Photo		Caries:	
2) Maloc:		Perio:	
3) E. Symmetry:		Esthetics:	
2. GROUP ESTHETICS		MAINTENANCE AND PREVENTION	
		RC/TM:	
1) 1st Arch Index:		Range of Shape	
2) 2nd Arch Index:		Compromised Profile	
3) 3rd Arch Index:		4) 4th Arch Index	
4) 4th Arch Index:		5) 5th Arch Index	
5) 5th Arch Index:		6) 6th Arch Index	
6) 6th Arch Index:		7) 7th Arch Index	
7) 7th Arch Index:		8) 8th Arch Index	
8) 8th Arch Index:		9) 9th Arch Index	
9) 9th Arch Index:		10) 10th Arch Index	
10) 10th Arch Index:		11) 11th Arch Index	
11) 11th Arch Index:		12) 12th Arch Index	
12) 12th Arch Index:		13) 13th Arch Index	
13) 13th Arch Index:		14) 14th Arch Index	
14) 14th Arch Index:		15) 15th Arch Index	
15) 15th Arch Index:		16) 16th Arch Index	
16) 16th Arch Index:		17) 17th Arch Index	
17) 17th Arch Index:		18) 18th Arch Index	
18) 18th Arch Index:		19) 19th Arch Index	
19) 19th Arch Index:		20) 20th Arch Index	
20) 20th Arch Index:		21) 21st Arch Index	
21) 21st Arch Index:		22) 22nd Arch Index	
22) 22nd Arch Index:		23) 23rd Arch Index	
23) 23rd Arch Index:		24) 24th Arch Index	
24) 24th Arch Index:		25) 25th Arch Index	
25) 25th Arch Index:		26) 26th Arch Index	
26) 26th Arch Index:		27) 27th Arch Index	
27) 27th Arch Index:		28) 28th Arch Index	
28) 28th Arch Index:		29) 29th Arch Index	
29) 29th Arch Index:		30) 30th Arch Index	
30) 30th Arch Index:		31) 31st Arch Index	
31) 31st Arch Index:		32) 32nd Arch Index	
32) 32nd Arch Index:		33) 33rd Arch Index	
33) 33rd Arch Index:		34) 34th Arch Index	
34) 34th Arch Index:		35) 35th Arch Index	
35) 35th Arch Index:		36) 36th Arch Index	
36) 36th Arch Index:		37) 37th Arch Index	
37) 37th Arch Index:		38) 38th Arch Index	
38) 38th Arch Index:		39) 39th Arch Index	
39) 39th Arch Index:		40) 40th Arch Index	
40) 40th Arch Index:		41) 41st Arch Index	
41) 41st Arch Index:		42) 42nd Arch Index	
42) 42nd Arch Index:		43) 43rd Arch Index	
43) 43rd Arch Index:		44) 44th Arch Index	
44) 44th Arch Index:		45) 45th Arch Index	
45) 45th Arch Index:		46) 46th Arch Index	
46) 46th Arch Index:		47) 47th Arch Index	
47) 47th Arch Index:		48) 48th Arch Index	
48) 48th Arch Index:		49) 49th Arch Index	
49) 49th Arch Index:		50) 50th Arch Index	
50) 50th Arch Index:		51) 51st Arch Index	
51) 51st Arch Index:		52) 52nd Arch Index	
52) 52nd Arch Index:		53) 53rd Arch Index	
53) 53rd Arch Index:		54) 54th Arch Index	
54) 54th Arch Index:		55) 55th Arch Index	
55) 55th Arch Index:		56) 56th Arch Index	
56) 56th Arch Index:		57) 57th Arch Index	
57) 57th Arch Index:		58) 58th Arch Index	
58) 58th Arch Index:		59) 59th Arch Index	
59) 59th Arch Index:		60) 60th Arch Index	
60) 60th Arch Index:		61) 61st Arch Index	
61) 61st Arch Index:		62) 62nd Arch Index	
62) 62nd Arch Index:		63) 63rd Arch Index	
63) 63rd Arch Index:		64) 64th Arch Index	
64) 64th Arch Index:		65) 65th Arch Index	
65) 65th Arch Index:		66) 66th Arch Index	
66) 66th Arch Index:		67) 67th Arch Index	
67) 67th Arch Index:		68) 68th Arch Index	
68) 68th Arch Index:		69) 69th Arch Index	
69) 69th Arch Index:		70) 70th Arch Index	
70) 70th Arch Index:		71) 71st Arch Index	
71) 71st Arch Index:		72) 72nd Arch Index	
72) 72nd Arch Index:		73) 73rd Arch Index	
73) 73rd Arch Index:		74) 74th Arch Index	
74) 74th Arch Index:		75) 75th Arch Index	
75) 75th Arch Index:		76) 76th Arch Index	
76) 76th Arch Index:		77) 77th Arch Index	
77) 77th Arch Index:		78) 78th Arch Index	
78) 78th Arch Index:		79) 79th Arch Index	
79) 79th Arch Index:		80) 80th Arch Index	
80) 80th Arch Index:		81) 81st Arch Index	
81) 81st Arch Index:		82) 82nd Arch Index	
82) 82nd Arch Index:		83) 83rd Arch Index	
83) 83rd Arch Index:		84) 84th Arch Index	
84) 84th Arch Index:		85) 85th Arch Index	
85) 85th Arch Index:		86) 86th Arch Index	
86) 86th Arch Index:		87) 87th Arch Index	
87) 87th Arch Index:		88) 88th Arch Index	
88) 88th Arch Index:		89) 89th Arch Index	
89) 89th Arch Index:		90) 90th Arch Index	
90) 90th Arch Index:		91) 91st Arch Index	
91) 91st Arch Index:		92) 92nd Arch Index	
92) 92nd Arch Index:		93) 93rd Arch Index	
93) 93rd Arch Index:		94) 94th Arch Index	
94) 94th Arch Index:		95) 95th Arch Index	
95) 95th Arch Index:		96) 96th Arch Index	
96) 96th Arch Index:		97) 97th Arch Index	
97) 97th Arch Index:		98) 98th Arch Index	
98) 98th Arch Index:		99) 99th Arch Index	
99) 99th Arch Index:		100) 100th Arch Index	
100) 100th Arch Index:		101) 101st Arch Index	
101) 101st Arch Index:		102) 102nd Arch Index	
102) 102nd Arch Index:		103) 103rd Arch Index	
103) 103rd Arch Index:		104) 104th Arch Index	
104) 104th Arch Index:		105) 105th Arch Index	
105) 105th Arch Index:		106) 106th Arch Index	
106) 106th Arch Index:		107) 107th Arch Index	
107) 107th Arch Index:		108) 108th Arch Index	
108) 108th Arch Index:		109) 109th Arch Index	
109) 109th Arch Index:		110) 110th Arch Index	
110) 110th Arch Index:		111) 111th Arch Index	
111) 111th Arch Index:		112) 112th Arch Index	
112) 112th Arch Index:		113) 113th Arch Index	
113) 113th Arch Index:		114) 114th Arch Index	
114) 114th Arch Index:		115) 115th Arch Index	
115) 115th Arch Index:		116) 116th Arch Index	
116) 116th Arch Index:		117) 117th Arch Index	
117) 117th Arch Index:		118) 118th Arch Index	
118) 118th Arch Index:		119) 119th Arch Index	
119) 119th Arch Index:		120) 120th Arch Index	
120) 120th Arch Index:		121) 121st Arch Index	
121) 121st Arch Index:		122) 122nd Arch Index	
122) 122nd Arch Index:		123) 123rd Arch Index	
123) 123rd Arch Index:		124) 124th Arch Index	
124) 124th Arch Index:		125) 125th Arch Index	
125) 125th Arch Index:		126) 126th Arch Index	
126) 126th Arch Index:		127) 127th Arch Index	
127) 127th Arch Index:		128) 128th Arch Index	
128) 128th Arch Index:		129) 129th Arch Index	
129) 129th Arch Index:		130) 130th Arch Index	
130) 130th Arch Index:		131) 131st Arch Index	
131) 131st Arch Index:		132) 132nd Arch Index	
132) 132nd Arch Index:		133) 133rd Arch Index	
133) 133rd Arch Index:		134) 134th Arch Index	
134) 134th Arch Index:		135) 135th Arch Index	
135) 135th Arch Index:		136) 136th Arch Index	
136) 136th Arch Index:		137) 137th Arch Index	
137) 137th Arch Index:		138) 138th Arch Index	
138) 138th Arch Index:		139) 139th Arch Index	
139) 139th Arch Index:		140) 140th Arch Index	
140) 140th Arch Index:		141) 141st Arch Index	
141) 141st Arch Index:		142) 142nd Arch Index	
142) 142nd Arch Index:		143) 143rd Arch Index	
143) 143rd Arch Index:		144) 144th Arch Index	
144) 144th Arch Index:		145) 145th Arch Index	
145) 145th Arch Index:		146) 146th Arch Index	
146) 146th Arch Index:		147) 147th Arch Index	
147) 147th Arch Index:		148) 148th Arch Index	
148) 148th Arch Index:		149) 149th Arch Index	
149) 149th Arch Index:		150) 150th Arch Index	
150) 150th Arch Index:		151) 151st Arch Index	
151) 151st Arch Index:		152) 152nd Arch Index	
152) 152nd Arch Index:		153) 153rd Arch Index	
153) 153rd Arch Index:		154) 154th Arch Index	
154) 154th Arch Index:		155) 155th Arch Index	
155) 155th Arch Index:		156) 156th Arch Index	
156) 156th Arch Index:		157) 157th Arch Index	
157) 157th Arch Index:		158) 158th Arch Index	
158) 158th Arch Index:		159) 159th Arch Index	
159) 159th Arch Index:		160) 160th Arch Index	
160) 160th Arch Index:		161) 161st Arch Index	
161) 161st Arch Index:		162) 162nd Arch Index	
162) 162nd Arch Index:		163) 163rd Arch Index	
163) 163rd Arch Index:		164) 164th Arch Index	
164) 164th Arch Index:		165) 165th Arch Index	
165) 165th Arch Index:		166) 166th Arch Index	
166) 166th Arch Index:		167) 167th Arch Index	
167) 167th Arch Index:		168) 168th Arch Index	
168) 168th Arch Index:		169) 169th Arch Index	
169) 169th Arch Index:		170) 170th Arch Index	
170) 170th Arch Index:		171) 171st Arch Index	
171) 171st Arch Index:		172) 172nd Arch Index	
172) 172nd Arch Index:		173) 173rd Arch Index	
173) 173rd Arch Index:		174) 174th Arch Index	
174) 174th Arch Index:		175) 175th Arch Index	
175) 175th Arch Index:		176) 176th Arch Index	
176) 176th Arch Index:		177) 177th Arch Index	
177) 177th Arch Index:		178) 178th Arch Index	
178) 178th Arch Index:		179) 179th Arch Index	
179) 179th Arch Index:		180) 180th Arch Index	
180) 180th Arch Index:		181) 181st Arch Index	
181) 181st Arch Index:		182) 182nd Arch Index	
182) 182nd Arch Index:		183) 183rd Arch Index	
183) 183rd Arch Index:		184) 184th Arch Index	
184) 184th Arch Index:		185) 185th Arch Index	
185) 185th Arch Index:		186) 186th Arch Index	
186) 186th Arch Index:		187) 187th Arch Index	
187) 187th Arch Index:		188) 188th Arch Index	
188) 188th Arch Index:		189) 189th Arch Index	
189) 189th Arch Index:		190) 190th Arch Index	
190) 190th Arch Index:		191) 191st Arch Index	
191) 191st Arch Index:		192) 192nd Arch Index	
192) 192nd Arch Index:		193) 193rd Arch Index	
193) 193rd Arch Index:		194) 194th Arch Index	
194) 194th Arch Index:		195) 195th Arch Index	
195) 195th Arch Index:		196) 196th Arch Index	
196) 196th Arch Index:		197) 197th Arch Index	
197) 197th Arch Index:		198) 198th Arch Index	
198) 198th Arch Index:		199) 199th Arch Index	
199) 199th Arch Index:		200) 200th Arch Index	
200) 200th Arch Index:		201) 201st Arch Index	
201) 201st Arch Index:		202) 202nd Arch Index	
202) 202nd Arch Index:		203) 203rd Arch Index	
203) 203rd Arch Index:		204) 204th Arch Index	
204) 204th Arch Index:		205) 205th Arch Index	
205) 205th Arch Index:		206) 206th Arch Index	
206) 206th Arch Index:		207) 207th Arch Index	
207) 207th Arch Index:		208) 208th Arch Index	
208) 208th Arch Index:		209) 209th Arch Index	
209) 209th Arch Index:		210) 210th Arch Index	
210) 210th Arch Index:		211) 211st Arch Index	
211) 211st Arch Index:		212) 212nd Arch Index	
212) 212nd Arch Index:		213) 213rd Arch Index	
213) 213rd Arch Index:		214) 214th Arch Index	
214) 214th Arch Index:		215) 215th Arch Index	
215) 215th Arch Index:		216) 216th Arch Index	
216) 216th Arch Index:		217) 217th Arch Index	
217) 217th Arch Index:		218) 218th Arch Index	
218) 218th Arch Index:		219) 219th Arch Index	
219) 219th Arch Index:		220) 220th Arch Index	
220) 220th Arch Index:		221) 221st Arch Index	
221) 221st Arch Index:		222) 222nd Arch Index	
222) 222nd Arch Index:		223) 223rd Arch Index	
223) 223rd Arch Index:		224) 224th Arch Index	
224) 224th Arch Index:		225) 225th Arch Index	
225) 225th Arch Index:		226) 226th Arch Index	
226) 226th Arch Index:		227) 227th Arch Index	
227) 227th Arch Index:		228) 228th Arch Index	
228) 228th Arch Index:		229) 229th Arch Index	
229) 229th Arch Index:		230) 230th Arch Index	
230) 230th Arch Index:		231) 231st Arch Index	
231) 231st Arch Index:		232) 232nd Arch Index	
232) 232nd Arch Index:		233) 233rd Arch Index	
233) 233rd Arch Index:		234) 234th Arch Index	
234) 234th Arch Index:		235) 235th Arch Index	
235) 235th Arch Index:		236) 236th Arch Index	
236) 236th Arch Index:		237) 237th Arch Index	
237) 237th Arch Index:		238) 238th Arch Index	
238) 238th Arch Index:		239) 239th Arch Index	
239) 239th Arch Index:		240) 240th Arch Index	
240) 240th Arch Index:		241) 241st Arch Index	
241) 241st Arch Index:		242) 242nd Arch Index	
242) 242nd Arch Index:		243) 243rd Arch Index	
243) 243rd Arch Index:		244) 244th Arch Index	
244) 244th Arch Index:		245) 245th Arch Index	
245) 245th Arch Index:		246) 246th Arch Index	
246) 246th Arch Index:		247) 247th Arch Index	
247) 247th Arch Index:		248) 248th Arch Index	
248) 248th Arch Index:		249) 249th Arch Index	
249) 249th Arch Index:		250) 250th Arch Index	
250) 250th Arch Index:		251) 251st Arch Index	
251) 251st Arch Index:		252) 252nd Arch Index	
252) 252nd Arch Index:		253) 253rd Arch Index	
253) 253rd Arch Index:		254) 254th Arch Index	
254) 254th Arch Index:		255) 255th Arch Index	
255) 255th Arch Index:		256) 256th Arch Index	
256) 256th Arch Index:		257) 257th Arch Index	
257) 257th Arch Index:		258) 258th Arch Index	
258) 258th Arch Index:		259) 259th Arch Index	
259) 259th Arch Index:		260) 260th Arch Index	
260) 260th Arch Index:		261) 261st Arch Index	
261) 261st Arch Index:		262) 262nd Arch Index	
262) 262nd Arch Index:		263) 263rd Arch Index	
263) 263rd Arch Index:		264) 264th Arch Index	
264) 264th Arch Index:		265) 265th Arch Index	
265) 265th Arch Index:		266) 266th Arch Index	
266) 266th Arch Index:		267) 267th Arch Index	
267) 267th Arch Index:		268) 268th Arch Index	
268) 268th Arch Index:		269) 269th Arch Index	
269) 269th Arch Index:		270) 270th Arch Index	
270) 270th Arch Index:		271) 271st Arch Index	
271) 271st Arch Index:		272) 272nd Arch Index	
272) 272nd Arch Index:		273) 273rd Arch Index	
273) 273rd Arch Index:		274) 274th Arch Index	
274) 274th Arch Index:		275) 275th Arch Index	
275) 275th Arch Index:		276) 276th Arch Index	
276) 276th Arch Index:		277) 277th Arch Index	
277) 277th Arch Index:		278) 278th Arch Index	
278) 278th Arch Index:		279) 279th Arch Index	
279) 279th Arch Index:		280) 280th Arch Index	
280) 280th Arch Index:		281) 281st Arch Index	
281) 281st Arch Index:		282) 282nd Arch Index	
282) 282nd Arch Index:		283) 283rd Arch Index	
283) 283rd Arch Index:		284) 284th Arch Index	
284) 2			

1. Occlusal Plane:
2. Midline:
3. Facial Symmetry:
4. Lip Position:
5. Facial Lateral Thirds:
6. Tooth Show (Smile):
7. Bucal Corridor:
8. Gingival Show:
9. Incisal Plane:
10. Incisal Plane T Lip:
11. Conversational TS:

GROUP ESTHETICS

12. Axial Incline:
13. Rotation:
14. Crowd/Space:
15. Embrasure:
16. US Inclination:
17. Esthetic Zone:
18. Over jet/ Overbite:
19. Lateral Occlusal Plane:

GINGIVAL ESTHETICS

20. Papilla:
21. Gingival Symmetry:
22. Gingival Biotype:

TOOTH ESTHETICS

23. Shade:
24. Shape/Style:
25. Rotation:

“What is an Ideal Occlusion”? Joint Position...

- Natural bite
 - Neuromuscular
- CR:
- Gnathology
 - Bioesthetics
 - Pankey-Dawson

The 3 Golden Rules Of Occlusion

- 1. Bilateral even contacts.**
- 2. Posterior disclusion (anterior guidance & canine rise).**

3. Unobstructed envelop of function.

The Ultimate Goal!

1. Why Even Contacts?

Gibb C. Mahan PE. et al. Limits of Human Bite Strength. J Prosth Dent 1986 Aug;56(2):226

Sheikholeslam A. Riise C. Influence of experimental interfering occlusal contacts on the activity of the anterior temporal and masseter muscles ... J Oral Rehab 1983; Vol. 10:207-14

2 a. Why Anterior Guidance?

Manns A. Miralles R. Influence of variation in anteroposterior occlusal contacts on electromyographic activity . J Prosthet Dent. 1989 May;61(5):617-23.

[Mansour RM](#), [Reynik RJ](#). In vivo occlusal forces...Forces measured in terminal hinge position...

J Dent Res. 1975 Jan-Feb;54(1):114-20.

Williamson EH. Et al . Anterior guidance: effect on electromyographic activity of the temporalis and maseter J. Prosth Dent 1983; 49:816

2 b. Why Canine Guidance?

[Manns A](#), [Chan C](#), et al. Influence of group function and canine guidance on electromyographic activity of elevator muscles. J Prosthet Dent. 1987 Apr;57(4):494-501

3. Envelop of Function?

Dawson PE. Evaluation, Diagnosis and Treatemnet of Occlusal Problems. 1989 Mosby

VDO

* Patient accommodation to changes in VDO, suggest than VDO can be modified with in reason without clinical consequences.

McNeill C. Science and Practice of Occlusion. Quintessence Books. 1997 Chapter 30; Pages409

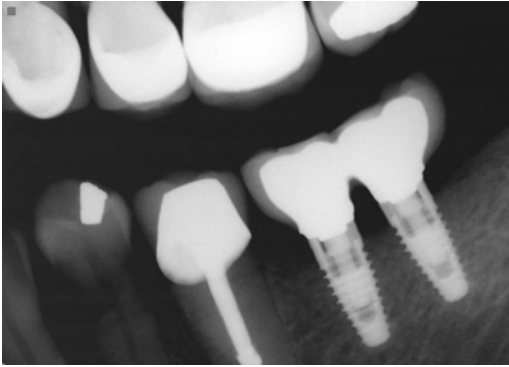
Diagnose Before You Treat!

Diagnose First:

There can only be one correct diagnosis, but there can be many treatments for that diagnosis. Hippocrates

- Pt. Goals
- Diagnosis (Disease & Etiology)
- Treatment

The Logical Approach To Implant Dentistry



The Tend:

Dear, JL, enjoyed your article in the Glidwell mag. I really enjoyed the part about not grafting. In my area of the country, North Carolina, virtually all the perio. and OS graft every case. I see fewer and fewer people accepting implants because this drives up the cost.

Dr. Don DiGiulian

Bone Grafting Success?

- Failure in augmented ridges:
- 7.5% before loading
- 11.3% during 5 years of function.

Froum SJ, Dental Implant Complications. 2010 Wiley-Blackwell. Chapter 6; Pag 112

Narrow ImplantsGeckili:

- 159 NDIs belonging to four brands...overall success rate of 98.74%.
- Arisan: NDIs can be used with confidence where a regular diameter implant is not suitable. No implant fractured.

Geckili O, Mumcu E, Bilhan H. Radiographic Evaluation of Narrow Diameter Implants after 5 years of clinical function: a Retrospective Study. J Oral Implantol. 2011 Feb 5

Arisan V, Bölükbaşı N, Ersanli S, Ozdemir T. Evaluation of 316 narrow diameter implants followed for 5-10 years: a clinical and radiographic retrospective study. Clin Oral Implants Res. 2010 Mar;21(3):296-307

Keeping the Patient's Best Interest in Mind...

Who is the "best" professional to perform implant procedures for our patients?

Composite Classification

Large particle or Traditional 1-50µm (out of use)

Microfill < 0.05µm

Traditional Hybrid 20µm (out of use)

Microhybrids 0.04µm

Nanofill 75- 20 nm

Flowable

Condensable

Bulk Fill Flowable (new)

Microfills

Advantages & Uses

Disadvantages_____

Microhybrids

≤0.4µm to 0.6µm average

Advantages & Uses

Disadvantages

Nanohybrids or Nanofills... Advantages & Uses

Disadvantages

Flowables... Advantages and Uses

Disadvantages

Bulk Fill Flowable (New) Advantages

Bonding System:

Goal is Predictable Clinical Success

- Strong adhesion
- No post-op sensitivity
- Proper seal
- Ease of use
- Durability

Enamel Bonding Is Unchanged:

1955 Michael Buonocore; Ray Bowen 1960s

Etch enamel with 37% phosphoric acid for 15-20 sec

15-25 MPa of bond strength.*

2 Families of Dentin Bonding Systems

1. Total Etch

- 2 Bottle (4th Generation)
- 1 Bottle (5th Generation)

2. Self Etch

- 2 Bottles (6th Generation)
- 1 Bottle (7th Generation)

4th Generation Dentin Bonding System

(Total Etch) Fusayama (1979) Total etch & Nakabayashi (1982) Hydrophilic resin and Hybrid layer

5th Generation

TE Bonding Technique



Notes

Abu-Hanna A., Gordan V. The effect of variation in etching times on dentin bonding. General Dentistry Jan 2004

Problems with Total Etch:

Complicated technique, Degradation of Bond & PO Sensitivity!!!

Berkowitz G, Horowitz A et al. Postoperative hypersensitivity in class I ...In general practice, Interim results. Compendium 2009 Vol 30;6:356-363

Carvalho et al Effect of HEMA/solvent combination on bond strength to dentin. J Dent Res 82(8):597-601, 2003 ;

Tay F. Pashley D. Water treeing-A potential mechanism for degradation of dentin adhesives. Ame J Dent 16:6-12, 2003

Sixth & Seventh Generation, Self Etch

Total Etch versus Self Etch Adhesives, Effects on Postoperative sensitivity Perdigao J, et al JADA December 2003

Advantages of Self Etch? Forgiving!!!

Tay FR, Gwinnett AJ, Wei SHY. Micromorphological spectrum for over drying to oversetting acid condition dentin...Dental materials 1996;12:236-244

Perdigao J, et al Total Etch versus Self Etch Adhesives, Effects on Postoperative sensitivity JADA December 2003

Werner J.F. & Tani C. Journal of Adhesive Dentistry. 4(4):277-82, 2002

Advantages of SE... Less Sensitivity!!!

CRA:

No post-op sensitivity SE 24% & TE 12%

Severe SE 4% & TE 17%

Bond Strength & Performance SE?

Cura C. & al Effect of different bonding agents on shear bond strengths of composite-bonded porcelain to enamel. Journal of Prosthetic Dentistry. 89(4):394-9, 2003 Apr.

Turkun LS. The clinical performance of one and two step self etch adhesive systems at one year. 2005 JADA Vol.136 May: 656

Etch Enamel? Yes...

J.L. Ruiz, W. Finger, T. Endo Conventional and self-etching adhesive effects on retention of luting resins Abstract IADR 2004

Fabianelli A. & al Efficacy of self-etching primer on sealing margins of Class II restorations American Journal of Dentistry. 16(1): 2003 .

Self Etch, Improved Degradation of Bond

Marc Braem Microshear fatigue testing of tooth adhesives interface. Journal of adhesive Dent 2007 Vol 9 Supplement 2

Waidyasekera K, Nikaido T et al. Reenforcement of dentin in self etch adhesive technology: a new concept.
J of Dent 2009; 37:604-609

SE Bonding Technique



Notes

Thank You

Dr. Jose-Luis Ruiz DDS

Founder of Los Angeles Institute of Clinical Dentistry and past Course Director of the “USC Advanced Esthetic Continuum” from 2004-2009 **University of Southern California School of Dentistry. Associate Instructor at Dr. Gordon Christensen PCC in Provo, Utah.** Independent evaluator of dental products for the **CRA.** Fellow of the Academy of General Dentistry. *Dr. Ruiz was named as one of the “Top Clinicians in CE in 2006- 2012” by Dentistry Today.*

(818) 558-4332 Ruiz@DrRuiz.com www.DrRuizOnLine.com