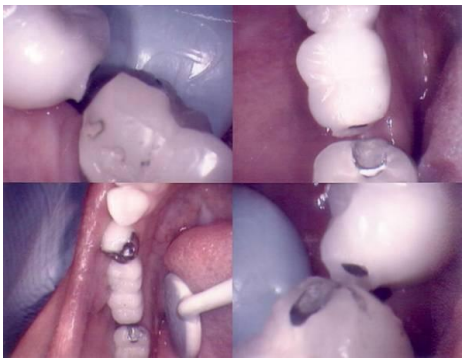
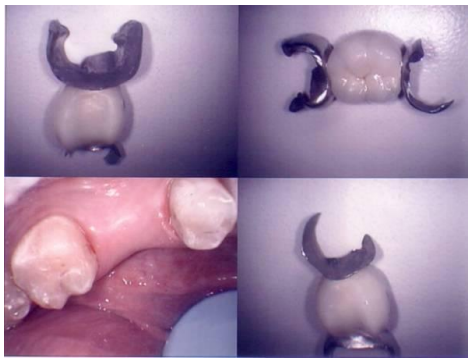
RE-BONDS:

I make sure all bonding is removed from the abutment teeth before sending the MB to the lab. That way I can try it in and assure fit and note areas that need bonding removed. I usually use a slow speed diamond to remove bonding from tooth structure. The assistant keeps air/water spray on the bur. I stop often to check with an explorer to see where more bonding needs removing. You can etch with Hydrochloric Nitric acid MetEtch in your office if you choose. I send the Maryland Bridge to my lab, they check to see all bonding is removed, cleaned, sand blasted, etched for 20 minutes (I ask them to double etch so I know it is fully etched). In an hour or so it is returned and we follow the same seating procedure as a new one. When you scratch tooth with a metal explorer, nothing shows up and it is smooth. When you scratch left over bonding with that same metal explorer you will see gray streaks/scratch marks. That is how you tell how far to grind until you get back to enamel/dentin. Neither enamel nor dentin scratches. Incidentally this is the way I check all ortho patients who return after removal of bonded braces. We occasionally find left over bonding on enamel. It is difficult to see and detect. Just a word about re-bonds. I expect de-bonds in 10-15 years. I've seen it in months or a few years. I've got some re-bonds over 10 years old. Most from clinch/grind or accidental trauma (chain slipped). Very few ever have recurrent decay anywhere under the wings. The re-bond logically is not going to outlast the first bond, but that's not always true! If it is from clinch or grind, they have to wear a nightguard!





DEBONDS: If metal is full of bond material = tooth etch failure. If metal is empty and bond material is on enamel solid = metal etch failure.

DON

FAILURES:

LAB: Diana /Frame broke within days – too small a connector to wing.

LAB: Don/Wrong metal – not etchable/problem clincher. Bad Design.

Buccal wing missing. Gotta have 180 degree wrap!

PATIENT HABITS: Bill (No night guard Grinder/clincher)

NORMAL TORQUE

ACCIDENTS: Al – metal chain hit him in the mouth one time and another time a metal mop handle – broke out a maxillary lateral incisor.

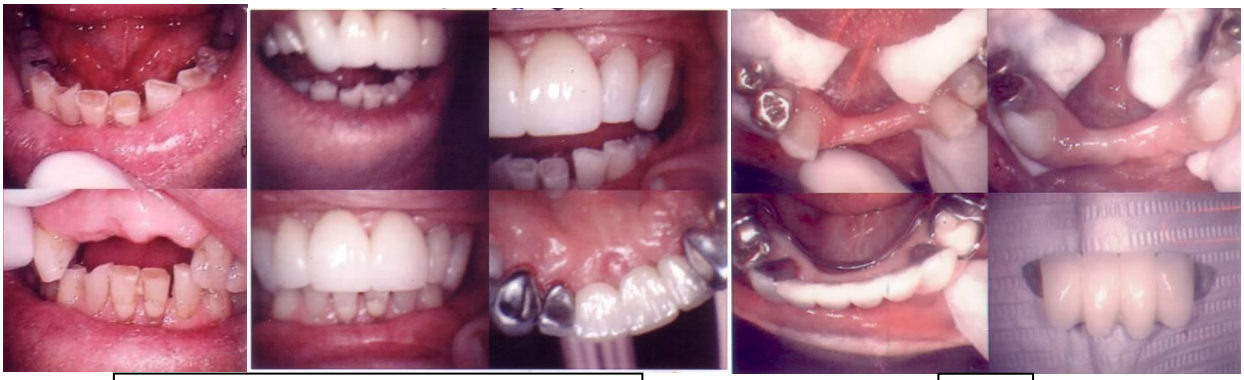
Christy – vertigo patient, handicapped, falls often and seizure prone, hits on face, comes in all bruised on lips/face

SMALL TEETH/LIMITED ENAMEL SPACE

HARD NUTS, BONES, ICE, HARD/STICKY CANDY

AGE: Pat – 15 year de-bond, one end only – rebonded and now in 20th year.

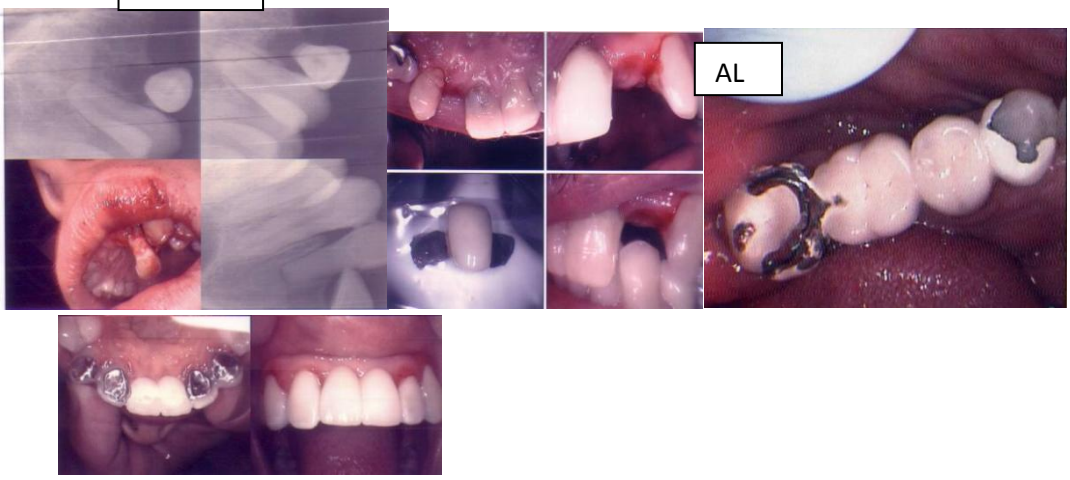
PORCELAIN COVERED WINGS CHIPPED: many have chipped but no one is complaining nor redoing them for that reason.



BILL – severe grinder and no-nightguard

PAT

CHRISTY



AL

RECAP

Choose teeth with good enamel.

Minimal prep so as to keep good enamel bond.

180 degree wrap on posteriors and full lingual on anteriors

Triple tray impression with polyethers or polyvinyl

Use only non-precious base metal with 1.8% Beryllium

Lab sandblast and etch with HCl and Nitric Acid combo for minimum of 20 minutes

Major on do's and don'ts – it's just common sense!

If saliva / H20 contaminated during try-in, re-etch with Met-Etch or clean with 35% phosphoric acid.
Do not put silane on the metal, only silane porcelain where bonding is needed.
Use 35%-37% phosphoric acid for enamel etch and place one coat of primer/bond, and air thin; add second coat and air thin before curing.
Night guard for bruxers/clinchers from the start.
Major on do's and don'ts – it's just common sense!

SOME BOTTOM LINE CONCLUSIONS

Maryland Bridges have a very significant place in dentistry. To knock Maryland Bridges is as ignorant as to knock implants. Knowledge and skill are inherent to dentistry. The more skill we develop, the more knowledge of metals and tooth bonding, the longer lasting our service will be. Bisphosphonate patients, handicapped patients, fearful patients, terminal cancer patients, economically disadvantaged patients, extremely elderly patients with healthy enamel, and regular great patients who are conservative about their enamel, gums and bone, all these folks, any patients actually, deserve an option of MB's offered where possible. I challenge every dentist who hears this message to learn the how-to's of Maryland Bridges and offer them when appropriate.

DISCLAIMER

I have no financial interest in any of the products listed or shown. These are actual cases. This represents the results of years of study/CE on techniques and practical application. These are not pie-in-the-sky idealisms but rather cost effective and tooth conservation restorations. They may not be the prettiest results, but until technology improves these can assist patients in keeping their own teeth for a lifetime. As you can tell, I have not been thinking of show and tell thru the years. The photography was just to inform the patients and keep some records in their charts. I apologize for the lack of exceptional photography. I do believe you grasp the concepts! You can go home and do this yourself. Good luck! Thanks for listening!