

## Esthetic Crown Lengthening and Normal/High/Low Osseous Crest Patients

### Esthetic Crown Lengthening:

Gummy Smile: 2 or more mm gingiva exposed in full smile

Ideal: CEJ to bone = 2mm

CEJ to Restorative Margin = 2.5mm (Posterior: 2.5-3mm)

Gingival margin to bone = 3mm

Sulcus (cover enamel) by 1mm

Surgery: go full width of smile

Altered passive eruption: Tooth short by measurement (normal =10-11mm)

Cannot feel CEJ in Sulcus

### Surgery:

(Approx. 1hr; approx. 1K)

1. Pre-op ibuprofen
2. Facial Flap: Facial flap only; interproximal tissue left intact; palatal untouched  
Intra-sulcular incision with inverse bevel incisions through facial papillae  
Go full width of smile  
Incision and elevation full thickness (elevate periosteum) past mucogingival junction
3. Move bone 2mm from CEJ from facial line angle to facial line angle  
Thin and bevel  
Use: Burs: Large & small round carbides, Large and small round diamonds  
Football diamond, 7009 Carbide finishing bur  
Weidelstaedt Chisels: Hu-Freidy CP 1/2 20-15-3  
Hu-Freidy CP 3/4 11.5-15-3  
Chisels: 13 K/T and Rhodes Back Action Chisel Hu-Freidy 36/37  
Use 15-C blade (to thin tissue)  
Irrigate and clean
4. Reposition tissue/flap 3mm coronal to alveolar bone crest (1mm sulcus on enamel)  
Facial of untouched papillae left raw  
Closed with 5-0 chromic gut; 1 suture/papilla; simple or vertical mattress
5. Tissue is thinned/evened/blended with E-surge with fine tip
6. Light pressure applied for 5 minutes
7. Post-op's: Soft/liquid diet for 2 weeks; likely ibup. q-4-h only; Peridex BID for 2 weeks

### Biologic Width; Normal/High/Low Osseous Crest; Marginal Gingival Stability:

Normal Crest: Mid-facial sound to bone = 3mm, Proximal sound to bone = 3 - 4.5mm  
(85%) C.T. attach. = Epith. Attach. = Sulcus = Approx. 1mm

Gingival tissue stable; Crown Margin .5mm sub-Ging = 2.5mm from bone

High Crest: Mid-facial sound to bone < 3mm; prox. Sound to bone < 3mm

(2%) C.T. + Epith. + Sulcus < 1mm each

Poss. not able to tolerate intra-sulc. margin; will recede. Use esthetic material/margin

Low Crest: Mid-facial sound to bone > 3mm; prox. Sound to bone > 4.5mm

(13%) Poss. Delicate delicate tissue, easily damaged and heal back to normal-crest relation  
→ Gingival recession

Low Crest Unstable: Deep sulcus, ~ 1mm C.T. attach, ~ 1mm Epith. attach,

eg. 5mm sounding with 3mm sulcus → 3mm unsupported tissue → recession

Low Crest stable: Shallow sulcus, wide (4mm) CT + Epith attach

eg. 5mm sounding w/1mm sulcus → 1mm only unsupported tissue → more stable

### Esthetic Surgery:

Normal osseous: 2mm from CEJ;

Gingival margin placed 3mm from osseous crest → 1mm onto enamel

Low osseous crest: needs longer attachment ; if place as normal will rebound to cover more tooth

Distance from CEJ to osseous crest must be > 2mm