Steps of Periodontal Surgery

- A. Patient selection
- B. Instrument selection
- C. Patient Documentation
- D. CHX prerinse
- E. Surgical Incisions
- F. Debridement and S/RP
- G. Suture
- H. Post Op Instructions and Rx
Mucogingival Surgery
("Periodontal Plastic Surgery")

Free Gingival Grafts
Connective Tissue Grafts
Root Coverage
Frenectomies

Gingival Grafts - Indications

1. Inadequate Width of Attached
2. Pre-Prosthetic (Subg. Crowns, etc.)
3. Pre-Implant
4. Generalized Recession
5. Eliminate Aberrant Frenum of Muscle Attachment

Etiology of Gingival Recession

1. Plaque/Inflammation
2. Labial Position of Tooth
3. Frenum
4. Food Mastication
5. Fingernails (factitial)
6. Piercings
## Gingival Grafts Contraindications

- **ANATOMICAL CONSIDERATIONS**
  - Mental Foramen
  - External/Oblique Ridge
  - Narrow Mandible

## Free Gingival Graft Surgery

- **Pt:** 42 y.o. w.f.
- **Med Hx:** ASA I
- **Sx T.P.:** Augmentation of Keratinized Gingiva (two teeth)
- **Donor tissue:** Max Palate

## Free Gingival Graft Surgery

- **Pt:** 38 y.o. w.f.
- **Med Hx:** ASA I
- **Rx Hx:** None
- **Dx:** Gingival Recession
- **TP:** Free Gingival Graft (Autogenous), LLS

*Clinician: Dr. Kevin Suzuki*
Free Gingival Graft Surgery

- Pt: 14 y.o. w. m.
- Med Hx: ASA I
- Rx Hx: none
- Sx T.P.: Pre-Orthodontic augmentation of Keratinized Gingiva
- Donor tissue: Max Palate

Free Gingival Graft Surgery

- Pt: 14 y.o. w. m.
- Med Hx: ASA I
- Sx T.P.: Pre-Orthodontic augmentation of Keratinized Gingiva

Modifications: "Overzealous" recipient bed site preparation

Free Gingival Graft Sx

- Pt: 26 y.o. w.f
- Med Hx: ASA I
- Sx T.P.: FGG, 4 quadrants, to enhance keratinized gingiva
- Donor tissue: Max Palate
An “Alternative” to Maxillary Palatal Donor Tissue

Freeze-Dried Allogeneic Skin

**Indications:** Same as Gingival Grafts

**Contraindications:**
Same as Gingival Grafts Except Allergy to Penicillin/Streptomycin or Antibiotics listed

Free Gingival Graft Sx

- Pt: 52 y.o. w.f
- Med Hx: ASA II
- Sx T.P.: FGG, 4 quadrants, to enhance keratinized gingiva
- Donor tissue: AlloDerm Acellular Matrix
Treatment Plan

- Free gingival graft #30 area
- Implant placement #30
- Restorative Phase
- Maintenance

Diagnosis

- Generalized chronic mild periodontitis with localized moderate to severe.
- Moderate to severe gingival recession.
- Compromised keratinized gingiva on buccal of implant #30.

Soft tissue graft wound healing

- **Immobilization:**
  - Suturing
  - Fibrin clot (4 min post pressure)
  - Dressing (Barricade or Coe pack)

_Sullivan P, Atkins J. 1968_
Mucogingival Surgery
(Periodontal Plastic Surgery)

Connective Tissue Grafts
Root Coverage
Patient Profile
- 71 year old AA female
- ASA type II (Hysterectomy, Rheum Arthritis)
- Occupation: teacher
- Referred: Root Coverage
- CC: Root Sensitivity, esp "upper right and middle teeth"

Palatal Anatomical Limitations

Palatal mucosa:
- Submucosa of anterior palate \( \rightarrow \) rich in fat
- Posterior palate \( \rightarrow \) greater palatine foramen and vessels

Factors Improving Graft Survival

- Capacity of recipient bed to form capillary outgrowths
- Hemostasis of the recipient bed
- Atraumatic handling of donor tissue
- Rapid vascularization of the graft
- Adequate immobilization during healing
- Proper post operative care

Sullivan et al., 1968
Factors Associated with Incomplete Root Coverage

- Improper Dx of marginal tissue recession
- Inadequate root planing
- Failure to treat the planed root with citric acid
- Improper preparation of recipient site

Factors Associated with Incomplete Root Coverage

- Improper preparation of recipient site
- Inadequate size of interdental papillae
- Improperly prepared donor tissue
- Reduction of inflammation prior to grafting
Consent for Gingival Augmentation Surgery

Diagnosis: After a careful oral examination and study of my dental condition, my resident/periodontist has advised me that I have gum recession. I understand that with this condition, further recession of the gum may occur. In addition, for fillings at the gum line or crowns with edges under the gum line, it is important to have sufficient width of keratinized or attached gum to withstand the irritation caused by the fillings or edges. Gum tissue may also be placed to improve appearance and to protect the roots of teeth.

Recommended Treatment: In order to treat this condition, my resident/periodontist has recommended that gingival augmentation procedures be performed in areas of my mouth with significant gum recession or insufficient keratinized attached gum. I understand that a local anesthetic will be administered to me as part of the treatment. This surgical procedure involves the transplanting of a thin strip of gum from the roof of my mouth or from the adjacent teeth. Alternatively, an allograft (tissue bank) gum may be used. A periodontal bandage or dressing may be put in place.

Expected Benefits: The purpose of gingival augmentation is to create an amount of gum tissue adequate enough to reduce the likelihood of further gum recession. Another purpose for this procedure may cover exposed root surfaces, to enhance the appearance of the teeth and gum line, or to prevent or treat root sensitivity.

Principal Risks and Complications: I understand that a small number of patients do not respond successfully to gingival augmentation. If a transplant is placed to partially cover the tooth root surface exposed by recession, the gum placed over the root may shrink back during healing. In this case, the attempt to cover the exposed root surface may not be completely successful. Indeed, in some cases, it may result in more recession with increased spacing between the teeth.

I understand that complications may result from gingival augmentation, drugs, or anesthetics. These complications include, but are not limited to post-surgical infection, bleeding, swelling and pain, facial discoloration, transient but on occasion permanent tooth sensitivity to hot, cold, sweet, or acidic foods, allergic reactions, and accidental swallowing of foreign matter.

There is no method that will accurately predict or evaluate how my gum and bone will heal. I understand that there may be a need for a second procedure if the initial surgery is not satisfactory. The success of periodontal procedures can be affected by medical conditions, dietary and nutritional problems, smoking, alcohol consumption, clenching and grinding of teeth, inadequate oral hygiene, and medications that I may be taking.

Alternative to Suggested Treatment: My resident/periodontist has explained alternative treatment for my gum recession. These include no treatment, continued monitoring for progressive recession, and modification of techniques for brushing teeth.

Necessary Follow-Up: I understand that it is important for me to continue to see my general dentist. Existing restorative dentistry can be an important factor in the success or failure of periodontal therapy. I will need to come for appointments following surgery so that my healing

Initials
may be monitored and so that my periodontist can evaluate and report on the outcome of surgery upon completion of healing.

No Warranty or Guarantee: I hereby acknowledge that no guarantee, warranty, or assurance has been given to me that the proposed treatment will be successful. Due to individual patient differences, a periodontist cannot predict the certainty of success. There is a risk of failure, relapse, additional treatment, or even worsening of my present condition, including the possible loss of certain teeth, despite the best of care.

I consent to the taking of photographs and x-rays for the purpose of education, medical study, or research and the reproduction or publication of these photographs in any manner, providing my identity is not revealed. For the purpose of advancing medical education, I also consent to the admittance of observers, technical representatives and participants to the operating room, and understand that I may be subject to a dental examination conducted for educational purposes.

I acknowledge that I have read and understand this consent, and that all questions about the proposed periodontal treatment have been answered in a satisfactory manner. I further understand that I have the right to be provided with answers to questions, which may arise during the course of treatment.

I certify that I am either the patient or the health care representative of the above referenced patient or have otherwise been empowered to give consent on behalf of the patient. This consent shall remain in force for 60 days after date signed or unless otherwise terminated by me.

(Date/Time)  (Signature of patient, parent, or health care representative)

(Date/Time)  (Signature of witness)

INTERPRETER’S STATEMENT: If an interpreter is provided to assist the patient:

I have interpreted the information and advice presented orally to the patient by the dental staff obtaining this consent, as well as the patient’s questions of the physician or medical staff. I have read to the patient or sight-translated to the patient the consent form in _________ (language). To the best of my knowledge and belief, he/she understood this interpretation.

Interpreter  Date/Time
INSTRUCTIONS AFTER PERIODONTAL AND DENTAL IMPLANT SURGERY

Discomfort: Some discomfort may be present when the anesthetic wears off. If pain control medication has been prescribed, take as directed. The amount of medication prescribed will be adequate in most cases; however, at times the prescription may need to be refilled. If you find this to be the case, please feel free to call and request additional pain medication. You may be required to return to your resident/periodontist before additional pain medication is prescribed. If mild pain persists, Tylenol or Advil is recommended to be taken as instructed.

Bleeding: A slight amount of post-surgery bleeding is normal. In case of excessive bleeding, take a gauze or tea bag and hold firmly over bleeding site for 20 minutes. If bleeding persists, notify your resident/periodontist.

Swelling: In some cases, swelling is to be expected. If ice packs have been recommended to minimize swelling, apply them on the outside of the face for 15 minutes on and 15 minutes off for the first 6 hours. The ice packs should only be used the day of surgery, even though swelling will persist and may even increase for the first 24 to 36 hours. If swelling and/or discomfort remains after 36 hours, hot packs may be applied to the outside of the face. Also, holding warm water inside the mouth is often helpful.

Oral Hygiene: Do not be concerned if traces of blood in the saliva are noted for several hours after surgery. Rinsing the mouth interferes with the clotting of blood, so do not rinse vigorously the first evening. Sipping ice water will keep the bleeding stopped. Do not use a straw, since the action of sucking may aggravate the bleeding. Beginning the day after surgery, a Chlorhexidine rinse (Periex, Perioguard) or a recommended over the counter rinse should be used to rinse the mouth as instructed by your resident/periodontist. If part of the mouth has not been involved in surgery, that portion may be cleaned, carefully avoiding the surgical site.

Eating and Care of the Dressing: Soft foods and liquids are desirable for the first week after surgery. The enclosed Nutrition After Periodontal and Dental Implant Surgery sheet contains specific recommendations. For the entire first week, please refrain from eating any hard foods such as nuts, raw apples, pretzels, carrots, etc. If a dressing or bandage was placed over the surgical site, please do not disturb it. Do not drink hot beverages for a period of 6 hours after surgery. After the first day, do not be concerned if portions of the dressing break off. It is not unusual for some or all of the dressing to be gone by the time you return for your next appointment (7 to 10 days after surgery). If loss of the dressing should cause discomfort, please call your resident/periodontist in our Clinic to have it replaced.

Antibiotics: If antibiotics are prescribed, take to completion.

Smoking: Refrain from or reduce smoking for the first 2-3 weeks after surgery as smoking affects the body’s ability to heal.
NUTRITION AFTER PERIODONTAL AND DENTAL IMPLANT SURGERY

For the Week Following Surgery: Good nutrition is always important. For the next week it is even more important for you to eat well-balanced meals. If you eat enough of the foods your body needs every day you may heal faster and with less discomfort.

Not Hungry? You may not be interested in eating now. You may not be hungry for the next few days. This is not an unusual experience following surgery. If you do not feel hungry, be sure that your meals are good to look at as well as to eat. An attractive meal will stimulate your appetite more than a drab one.

How to Eat: You may find chewing slow, difficult, and uncomfortable. It may be easier for you to eat small meals throughout the day rather than your usual 3 meals. As long as you eat the necessary amounts of food it is not important when you eat during the day.

What to Eat: You should not eat or drink any foods or liquids for at least 6 hours following surgery.

In the days immediately following periodontal surgery, it is recommended that you eat soft food and avoid any hard food products. This does not mean that you can only eat soup and juice for the next week. There are many good nutritious foods. The following are some suggested foods from the basic food groups that will be suitable for your temporary soft diet:

**Milk Group** (2 or more servings/day)
- Whole or Skim milk
- Buttermilk
- Yogurt
- Cottage Cheese

**Meat Group** (2 or more servings/day)
- Ground, Minced, or Pureed Meat
- Seafood, Tuna, Salmon, Shrimp
- Eggs

**Vegetables/Fruits** (4 or more servings/day)
- Stewed, Pureed Fruits and Vegetables
- Vegetable Juices
- Fruit Juices
- Soup

**Bread/Cereal** (4 or more servings/day)
- Hot or Cold Cereals
- Cream of Wheat
- Bread, Soft Rolls

You may find acidic juices such as orange juice are irritating to tender tissues around the surgical sites. Diluting the juice may be more comfortable for you.