CLASSIFICATIONS

Established in 1994
as a subcommittee of the
Prosthodontic Care Committee

Evidence based treatment procedures require:

• Accurate diagnosis
• Differentiation of treatment procedures to a specific diagnosis
• Outcome assessment criteria

Residual Ridge Reduction

• Maxilla 0.1mm
• Mandible 0.4mm

Classification System for the Completely Edentulous Patient

Class I
Ideal or minimally compromised

Class II
Moderately compromised

Class III
Substantially compromised

Class IV
Severely compromised

Bone Height
Mandibular

Diagnostic Criteria
1. Bone height—maxillary
2. Maxillomandibular relationship
3. Residual ridge morphology—maxilla
4. Muscle attachments
The objectivity of residual bone height measurement is affected by the magnification and variance of radiographic procedures and equipment of different manufacturers.

However, this diagnostic measurement reveals the most information of all the criteria. In order to minimize variance in techniques, the measurement should be made at that portion of the mandible of the least vertical height.

**Type I**
Residual bone height of 21mm or greater measured at the least vertical height of the mandible.

**Type II**
Residual bone height of 16-20 mm measured at the least vertical height of the mandible.

**Type III**
Residual alveolar bone height of 11-15 mm measured at the least vertical height of the mandible.

**Type IV**
Residual vertical bone height of 10 mm or less measured at the least vertical height of the mandible.
Maxillomandibular Relationship

Class I
Maxillomandibular relationship allows tooth position that has normal articulation with the teeth supported by the residual ridge.

Class II
Maxillomandibular relationship requires tooth position outside the normal ridge relation in order to attain phonetics and articulation; i.e., anterior or posterior tooth position not supported by the residual ridge/anterior vertical overlap that exceeds the principles of articulation.

Class III
Maxillomandibular relationship requires tooth position outside the normal ridge relation in order to attain phonetics and articulation; i.e., crossbite—anterior or posterior, tooth position not supported by the residual ridge.

Muscle Attachments

Type A
Adequate attached mucosal base without undue muscular impingement during normal function in all regions.
Type B
- Adequate attached mucosal base in all regions except anterior buccal vestibule—cusp to cusp
- High mentalis muscle attachment

Type C
- Adequate attached mucosal base in all regions except anterior buccal and lingual vestibules—cusp to cusp
- High genioglossus and mentalis muscle attachments

Type D
- Adequate attached mucosal base only in the posterior lingual region
- All other regions are detached

Type E
- No attached mucosa in any region
- Cheek and lip movement = tongue movement

Class I
This classification level describes the stage of edentulism that is most apt to be successfully treated by conventional prosthodontic techniques with complete denture prosthesis.

All four of the diagnostic criteria are favorable.

Class I
- Residual bone height of 21 mm or greater measured at the least vertical height of the mandible
- Class I maxillomandibular relationship
Class I

- Residual ridge morphology that resists horizontal and vertical movement of the denture base—Type A—Maxilla
- Location of muscle attachments that are conducive to denture base stability and retention—Type A, B—Mandible

Class II

- Residual bone height of 16-20 mm measured at the least vertical height of the mandible
- Class I maxillomandibular relationship
- Residual ridge morphology that resists horizontal and vertical movement of the denture base—Type A, B—Maxilla

Class III

- Residual bone height of 11-15 mm measured at the least vertical height of the mandible
- Class I, II and III maxillomandibular relationship
- Residual ridge morphology has minimum influence to resist horizontal or vertical movement of the denture base—Type C—Maxilla
- Location of muscle attachments with moderate influence on denture base stability and retention—Type C—Mandible

Class II

- Location of muscle attachments with limited influence on denture base stability and retention—Type A,B—Mandible
- Minor modifiers, psychosocial considerations, mild systemic disease with oral manifestations and localized soft tissue conditions

Class III

This classification level is characterized by the need for surgical revision of denture supporting structures to allow for adequate prosthodontic function.

Additional factors now play a significant role in treatment outcomes.

Conditions requiring preprosthetic surgery:

- Minor soft tissue procedures
- Minor hard tissue procedures
- Implant placement (simple)—no augmentation required
- Multiple extractions leading to complete edentulism for immediate denture placement
- Limited interarch space—18-20 mm

- Moderate psychosocial considerations and/or moderate oral manifestations of systemic diseases or localized soft tissue conditions
- TMD symptoms present
- Large tongue with or without hyperactivity
- Hyperactive gag reflex
Class IV

This classification level depicts the most debilitated edentulous condition.

Surgical reconstruction is almost always indicated but can not always be accomplished due to the patient’s health, desires, past dental history and financial considerations.

When surgical revision is not selected, prosthodontic techniques of a specialized nature must be used in order to achieve an adequate treatment outcome.

Major conditions which require preprosthetic surgery

- Implant placement (complex)—augmentation required
- Surgical correction of dentofacial deformities
- Hard tissue augmentation
- Major soft tissue revision, i.e., vestibular extensions with or without soft tissue grafting
- History of paresthesia or dysensthesia
- Insufficient interarch space with surgical correction required
- Acquired or congenital maxillofacial defects

- Severe oral manifestation of systemic disease or conditions including sequelae from oncologic treatment
- Maxillomandibular ataxia (incoordination)
- Hyperactivity of tongue that can be associated with a retracted tongue position and/or its associated morphology
- Hyperactive gag reflex managed with medication
- Psychosocial conditions warranting professional intervention

- Refractory patient (a patient who has chronic complaints following appropriate therapy). These patients continue to have difficulty in achieving their treatment expectations despite the thoroughness or frequency of the treatment provided.