

CAST METAL CROWN PREPARATION

ADEX 2024

CRITICAL ERRORS

Wrong tooth/surface treated	No	Yes
Procedure not challenged	No	Yes

ACC = Adheres to Criteria SUB = Marginally Substandard DEF = Critical Deficiency

CERVICAL MARGIN AND DRAW

Margin/Extension

ACC	The cervical margin is at the level of or ≤ 1.5 mm occlusal to the simulated free gingival margin.
SUB	A. The cervical margin is over-extended > 0.5 mm below crest of the simulated free gingival margin.
DEF	A. The cervical margin is over-extended > 0.5 mm below the crest of the simulated free gingival margin and causes visual damage to the typodont. B. The cervical margin is under-extended > 1.5 mm above the simulated free gingival margin.

Margin/Definition/Bevel

ACC	The cervical margin is continuous but may be slightly rough and/or may lack some definition. The cervical bevel, when used, is ≤ 1.5 mm and/or may lack some definition.
SUB	A. The cervical bevel, when used, is > 1.5 mm but ≤ 2.0 mm. B. The cervical bevel, when used, has very poor definition.
DEF	A. The cervical bevel, when used, is > 2.0 mm in length. B. The cervical margin has no continuity and/or definition. C. The cervical margin is cupped or J-shaped.

Margin/Width

ACC	The margin varies slightly in width from visually and explorer detectable to ≤ 1.0 mm.
SUB	The margin width is > 1.0 mm but ≤ 2.0 mm.
DEF	A. The margin width is > 2.0 mm. B. The margin is not detectable and/or is feathered.

Line of Draw

ACC	The path of insertion/line of draw deviates $< 20^\circ$ from the long axis of the tooth.
SUB	The path of insertion/line of draw deviates 20° to $< 30^\circ$ from the long axis of the tooth.
DEF	The path of insertion/line of draw deviates $\geq 30^\circ$ from the long axis of the tooth.

WALLS, TAPER, AND MARGIN

Axial Tissue Removal

ACC	The axial tissue removal is > 0.5 mm but ≤ 2.0 mm.
SUB	A. The axial tissue removal is > 2.0 mm but ≤ 2.5 mm.
DEF	A. The axial tissue removal is > 2.5 mm. B. The axial tissue removal is < 0.5 mm.

Axial Walls Smoothness/Undercut

ACC	The walls may be slightly rough and may lack some definition.
DEF	There is an undercut, which, when blocked out, would compromise margin width criteria and/or is > 0.5 mm deep.

Taper	
ACC	Taper is present, from nearly parallel to $\leq 12^\circ$.
SUB	There is excessive taper that is $> 12^\circ$ or $\leq 16^\circ$.
DEF	The taper is grossly over-reduced $> 16^\circ$ per wall.
Occlusal Reduction	
ACC	Occlusal reduction is ≥ 1.0 mm but ≤ 2.0 mm.
SUB	A. Occlusal reduction is > 2.0 mm but ≤ 2.5 mm.
DEF	A. Occlusal reduction is > 2.5 mm. B. Occlusal reduction is < 1.0 mm.
Internal Line Angles	
ACC	Internal line angles and cusp tip areas may not be completely rounded and may show a slight tendency of being sharp.
DEF	Internal line angles or cusp tip areas are excessively sharp with no evidence of rounding.
BRIDGE FACTOR	
Path of Insertion/Line of Draw	
ACC	The line of draw or path of insertion is direct or may require altering the path of insertion from a direct vertical axis to allow full seating.
DEF	No line of draw or path of insertion exists through any plane of rotation without the removal of additional tooth structure in the apical $\frac{2}{3}$ of either/both of the preparations.
TREATMENT MANAGEMENT	
Condition of Adjacent/Opposing Teeth	
ACC	Any damage to adjacent tooth/teeth can be removed with polishing without adversely altering the shape of the contour and/or contact.
SUB	A. Damage to adjacent tooth/teeth requires recontouring that changes the shape and/or position of the contact. B. Opposing hard tissue shows minimal evidence of damage and/or alteration inconsistent with the procedure.
DEF	A. There is gross damage to adjacent tooth/teeth, requiring a restoration. B. There is evidence of gross damage and/or alteration to opposing hard tissue inconsistent with the procedure.
Condition of Surrounding Tissue	
ACC	There may be slight damage to simulated gingiva and/or typodont consistent with the procedure.
SUB	There is iatrogenic damage to the simulated gingiva and/or typodont inconsistent with the procedure.
DEF	There is gross iatrogenic damage to the simulated gingiva and/or typodont inconsistent with the procedure.