



# **ADEX DENTAL EXAM SERIES: Fixed Prosthodontics and Endodontics**

## **2022 CANDIDATE MANUAL**

**Please read all pertinent manuals in detail prior to attending the examination**

Copyright © 2021 American Board of Dental Examiners  
Copyright © 2021 The CDCA-WREB

# Table of Contents

<b>Examination and Manual Overview</b>	2
<b>I. Examination Overview</b>	
A. Available Exam Formats	4
B. Exam Parts	4
C. Endodontic and Prosthodontic Typodonts and Instruments	5
D. Examination Schedule Guidelines	6
1. Dates & Sites	6
2. Timely Arrival	6
E. General Exam Administration Flow	7
1. Before the Exam: Candidate Orientation	7
2. Exam Day: Sample Schedule	7
3. Exam Day: Candidate Flow	8
F. Scoring Overview and Scoring Content	11
1. Section II. Endodontics Content	12
2. Section III. Fixed Prosthodontics Content	12
G. Penalties	13
<b>II. Standards of Conduct and Infection Control</b>	
A. Standards of Conduct	15
B. Infection Control Requirements	16
<b>III. Examination Content and Criteria</b>	
A. Endodontics Examination Procedures	19
B. Prosthodontics Examination Procedures	20
C. Endodontics Criteria	
1. Anterior Endodontics Criteria	23
2. Posterior Endodontics Criteria	25
D. Prosthodontics Criteria	
1. PFM Crown Preparation	27
2. Cast Metal Crown Preparation	29
3. Ceramic Crown Preparation	31
<b>IV. Examination Forms</b>	
A. Progress Form	34

See the **Registration and DSE OSCE Manual** for:

- Candidate profile creation and registration
- Online exam application process
- DSE OSCE registration process and examination information / Prometric scheduling processes
- ADEX Dental Examination Rules, Scoring, and Re-test processes

# EXAMINATION AND MANUAL OVERVIEW

The CDCA-WREB administers the ADEX clinical dental licensure examination. The ADEX dental exam series consists of a computer-based exam (DSE OSCE), simulated patient-based procedures, as well as patient-based procedures. All examinations are based on specific performance criteria as developed by ADEX which will be used to measure the clinical competency of candidates. This manual has been designed to assist candidates who are challenging the simulated patient-based procedures, specifically the endodontics and prosthodontics procedures.

All candidates who take any parts of the ADEX dental examination series administered by the CDCA-WREB between January 1, 2022 and December 31, 2022 are responsible for reading and understanding the 2022 examination manual(s) published by the CDCA-WREB, any documented changes to the 2021 manual(s), and for reviewing and understanding all other material provided by the CDCA-WREB regarding the exams administered between January 1, 2022 and December 31, 2022. If any questions arise during the registration process, candidates are responsible for communicating their questions to the CDCA-WREB staff **via email** (see contact information below). Questions **MUST** be submitted in writing.

In order to be successful in the registration process, candidates must review and master the guidelines provided by this manual and the CDCA-WREB. Otherwise, the candidate's ability to efficiently and effectively take the ADEX dental examination may be affected and may subsequently result in dismissal from and/or failure of one or more examination procedures.

During the online registration process, candidates are required to create a unique profile that contains all relevant contact information. It is extremely important that candidates maintain a current email and physical mailing address in their online candidate profiles. This is the only way to ensure that there will be a timely receipt of important materials from the CDCA-WREB.

**The CDCA-WREB has a blanket malpractice insurance policy that covers all dental candidates and their assistants for all ADEX examinations. Therefore, candidates and/or their assistants are not required to obtain additional limited liability insurance.**

The CDCA-WREB reserves the right to cancel or reschedule any examination in the event of an emergency or other unforeseen circumstance that is beyond the CDCA-WREB's control. The CDCA-WREB would either refund those candidates' application fees or reassign candidates to the next available examination site or reschedule the examination at the earliest possible date.

Every effort has been made to ensure that this manual is accurate, comprehensive, clear, and up-to-date. In the rare instances when examination related instructions need to be updated or clarified during the examination year those changes will be communicated to the candidates by the CDCA-WREB. There may also be other test related material sent to candidates. These materials will be available through their online candidate profiles and/or at registration on the day of the exam.



1304 Concourse Drive  
Suite 100

Linthicum, MD 21090

[www.cdcaexams.org](http://www.cdcaexams.org)

contact us: <https://www.cdcaexams.org/contact>

# **The ADEX Dental Examination Series: Fixed Prosthodontics and Endodontics Procedures**

## **I. Examination Overview**

- **Available Exam Formats**
- **Exam Parts**
- **Endodontics and Prosthodontics Typodonts and Instruments**
- **Examination Schedule Guidelines**
- **General Exam Administration Flow**
- **Scoring Overview and Scoring Content**
- **Penalties**

## A. Available Exam Formats

There are three basic exam formats: The Curriculum Integrated Format (CIF) is the pre-graduation format of the ADEX Dental Examination Series for dental students of record. The Curriculum Integrated Format, the Patient-Centered Curriculum Integrated Format (PC-CIF), and the Traditional Format examinations are identical in content, criteria, and scoring. The major difference between the formats is in the sequencing of examination sections.

- a. Curriculum Integrated Format (CIF): examination parts are administered over the course of an eligible dental student's D3 or D4 (or final) year. Typically, the manikin procedures are administered separately, usually months or weeks apart from the patient-based procedures.
- b. Patient-Centered CIF (PC-CIF): Similar to the CIF format described above, but the PC-CIF format is more individually tailored to each student's readiness and is integrated within the framework of a student's faculty-approved, treatment-planned school clinic caseload. In this format, patients leave with a definitive restoration provided by or under the supervision of the faculty, if treatment is not completed during the examination. Candidates participating in the PC-CIF format challenge all manikin and patient procedures in their home school clinic. Candidates register for all exam parts at the same time prior to challenging the manikin procedures.
- c. Traditional Format: all examination sections are administered in their entirety at each site over the course of two consecutive days. The Traditional Format is available several times each year. D4 (or final year) dental students as well as candidates who have already graduated from dental school are eligible for the Traditional Format.

## B. Fixed Prosthodontics and Endodontics Exam Parts

The Endodontics and Prosthodontics parts are performed on a manikin with a typodont in a patient treatment clinic or simulation laboratory, and they are offered on the same day, Endodontics procedures first, followed by the Prosthodontics procedures. Initially, candidates challenge both parts together, but individual parts may be re-challenged as needed.

Endodontics (administered first): Candidates have **three hours total** to complete both of the following:

- Anterior tooth: access, canal preparation, and obturation
- Posterior tooth: access preparation and canal identification

Prosthodontics (administered second): Candidates have **four hours total** to complete all of the following:

- Ceramic Crown: preparation of a maxillary incisor for an all ceramic crown
- Cast Metal Crown: preparation of a molar for a cast metal bridge abutment crown
- Porcelain-Fused-to-Metal Crown: preparation of a premolar for a porcelain-fused-to-metal bridge abutment crown

### C. **Endodontics and Prosthodontics Typodonts and Instruments**

The CDCA-WREB provides typodonts for candidates at each testing site. Currently, the CDCA-WREB uses Acidental typodonts.

The endodontics and prosthodontics examination parts will be administered at various testing sites. Candidates may attempt the endodontics and/or prosthodontics procedures up to three (3) times. For further guidance on the timeline and failure rules, see the three (3) time-failure rule as well as the 18-month rule in the *Registration and DSE OSCE Manual*.

THE CDCA-WREB PROVIDES TYPODONTS FOR THE EXAM BUT YOU MAY PURCHASE ONE FROM THE MANUFACTURER FOR PRACTICE PRIOR TO YOUR EXAM



Setup and mounting procedures of Acidental typodonts will be covered on site during registration. To order Acidental typodonts, visit <http://acidental.com/magento/licensure-candidates/cdca>

The **assigned teeth** for the **Endodontics** Examination are:

**Tooth # 8** for access, canal preparation, and obturation

**Tooth # 14** for location and direct access to three canals

**Note:** When shaping the canal for an Acidental tooth # 8, the canal should be prepared to a size 35 to 40 file. The size and shape of the access opening should be consistent with the size and anatomy of the pulp chamber of a 21-year old patient. When obturating the canal on tooth # 8 this must be done with pink or colored gutta-percha since white or light-colored obturation material is difficult to distinguish from sealer.

While warm gutta-percha or carrier-based, thermo-plasticized gutta-percha techniques are acceptable, it is highly recommended that they not be used, since they may cause damage to the plastic endodontic tooth.

The **assigned teeth** for the **Prosthodontics** Examination are:

**Tooth # 9** for preparation for an all-ceramic crown

**Tooth # 3** for preparation for a cast metal bridge abutment crown

**Tooth # 5** for preparation for a porcelain fused to metal bridge abutment crown

**Preparation Line of Draw:**

The two bridge abutment preparations must allow a line of draw.

**D. Examination Schedule Guidelines**

**1. *Dates and Sites***

Specific examination dates for a participating dental school can be found on the CDCA-WREB website. Please refer to the *Registration and General Administration Supplement* manual for the CDCA-WREB's specific policies and administrative guidelines.

The CDCA-WREB administers the endodontic and prosthodontic manikin-based examination parts at various dental schools on specified dates as determined by the dean or other official representative of the dental school and agreed upon by the CDCA-WREB.

In the event there are extenuating circumstances such as weather, acts of God, or other unforeseen circumstances which may impact or alter the schedule and administration of the examination(s), CDCA-WREB will make every attempt to contact candidates with updated information.

**2. *Timely Arrival***

Candidates are responsible for determining their travel and time schedules to ensure they can meet all of the CDCA-WREB's time requirements. All candidates are expected to arrive at the examination site at their designated time. Failure to follow this guideline may result in failure of the examination.

Candidates will be informed in their online candidate profiles as to the date on which they are to challenge each part of the examination. Candidates should note that the manikin-based examination procedures have specific time restraints, and all procedures for each examination must be completed within the allotted time for that part. Examination schedules are not finalized until after the examination application deadline.

## E. General Exam Administration Flow

### 1. *Before the Exam: Candidate Q&A Session*

A Question-and-Answer session will be scheduled to take place before each exam and will be led by the Chief and the Clinic Floor Examiners (CFEs). This meeting is designed to give candidates site-specific information that is relevant to the administration of the exam and answer any questions the candidates may have. Candidates should be familiar with all online resources and manuals before this meeting to get the most benefit from this session. This session will be virtual or in person, as coordinated between the host site and the Chief Examiner. Candidates will be informed of the time and format of the session by the site coordinator or by CDCA-WREB staff.

**In order to be granted entrance to the examination, and to receive exam materials, you must bring the following:**

- a. **Two** forms of identification: one ID must be a photo ID, and both IDs must have the candidate's signature. Acceptable forms include such documents as current, valid driver's license, passport, military ID, official school ID. A voter registration card (signed) or a credit card (signed) may be used as a second ID.
- b. Your candidate sequential number provided in your registration confirmation (available in your online candidate profile). \*You may either bring a printout of the registration confirmation or an electronic device that can display your identification information in your secure online profile.

### 2. *Exam Day: Sample Schedule (If taking both parts)*

<i>Time</i>	<i>Task</i>
<b>6:30 am</b>	Candidates may enter the clinic and begin initial cubicle set-up
<b>7:15 am</b>	Typodonts are distributed to candidates (ID badge, <i>Progress Form</i> , and candidate ID labels required to receive typodont)
<b>7:30 am – 8:30 am</b>	Set-up period (make putty matrices, measure Endo tooth, mount typodont/manikin head, place shroud)
<b>8:30 am – 11:30 am</b>	Endodontics Examination (3 Hours)
	Candidates may transition from Endo to Pros if Endo procedures are completed earlier than 11:30 am
<b>11:30 am</b>	Endodontics Examination ends / Candidates must transition to the Prosthodontics procedures / Prosthodontics-only candidates may enter clinic
<b>11:30 am – 3:30 pm</b>	Prosthodontics Examination (4 hours)
<b>3:30 pm</b>	Prosthodontics Examination ends
<b>3:45 pm</b>	All candidates must be in line to turn-in all required materials

### 3. Exam Day: Candidate Flow

**Auxiliary personnel and/or laboratory technicians are not permitted to assist a candidate during the Endodontics or Prosthodontics clinical examination procedures. Violation may result in failure of these examination parts.**

Candidates may enter the clinic or simulation lab used for the examination at 6:30am. Cubicle/work station assignments will be posted in a prominent location in the clinic or simulation lab being used for the exam. Upon arrival at 6:30am, candidates should locate their assigned cubicle/work station and proceed to begin set-up:

#### a. Arrival to Cubicle/Workstation

The following materials will be distributed by examiners at the exam site:

- **Cubicle cards:** you will only need ONE card for this examination. Either separate them or fold the cubicle card sheet in half. Write your cubicle number in the appropriate space on the cubicle card, and then tape it in a prominent place in your cubicle to identify your location
- **Candidate ID badge and ID labels:** Place the ID badge on your clinic gown or the outermost garment you are wearing for the examination. Candidate ID badges **MUST** be clearly visible at all times during the course of the examination. ID labels will be placed on the cubicle card and the Progress Form
- **Progress Form:** This form will be used for both the Endodontic and Prosthodontic parts. CFEs will use it to track and document your progress. CFEs must verify at specific steps in the exam process that you received their permission to proceed to the next step. You will use the Progress Form to record the length of your anterior endodontic tooth, and you may also use the “comments” section of the Progress Form to communicate any information to the examiners that you believe may affect the evaluation of your performance. For example, if your typodont has pre-existing defects on teeth or simulated gingival tissues, you should document the nature, size, and location of the defect(s) in the “comments” section and *request that a CFE verify that you made the comments as well as the time at which you made the comments (Note: Examiners will only consider candidate comments that have been verified by a CFE on the Progress Form).* Complete the following initial tasks in order:
  - i. **Fill in the cubicle number box on the upper right side of the form with YOUR cubicle number (also write on your cubicle card)**
  - ii. **Fill in the typodont number box on the upper right side of the form with YOUR typodont number**
  - iii. **Place one candidate ID label in the space provided (top right of the form)**

#### b. Mounting Typodonts

Instructions will be provided regarding any necessary adjustments and mechanisms specific to the test site to affect those adjustments to create a best fit occlusion.

An examiner will check each mounting to verify that it is correct. Should an examiner encounter an issue with fashioning a proper occlusal scheme, he/she should contact the Chief immediately.

**c. Set-up Period**

- CFEs will circulate to loosen Endo tooth #8 retention screw (Candidates may NOT loosen screw)
- Candidates measure length of Endo tooth (incisal edge to apex) with CFE present and then **record that measurement on the *Progress Form***
- CFE re-tightens tooth in typodont and then annotates the Progress Form
- Candidates make putty matrices/reduction guides (Candidates are NOT authorized to bring pre-made reduction guides, pre-made putty matrices, pre-made impressions, overlays, clear plastic shells, models, or pre-preparations; use of gloves is not required)

**d. 8:30 am: Endodontics Treatment of Simulated Patient Begins**

The Chief or a CFE will announce the beginning of the examination at 8:30am, and the candidate may perform the endodontic procedures in any order (separate isolation dam required for each procedure). CFEs will monitor the progress of all candidates and should confirm that all candidates have their manikin heads mounted, properly articulated, shrouds are properly placed, and the manikin heads are ready to undergo treatment. Once the examination has begun, the manikin will *from that point forward* be considered a “live” patient and candidates must observe and maintain all infection control guidelines and barrier controls. Failure to do so is a violation of examination protocol and will result in a penalty being assessed to the candidate. Repeated failure to observe appropriate infection/barrier control protocols will result in failure of the examination.

**A CFE must be notified immediately in case of equipment failure; he/she will contact school maintenance personnel. The malfunction must be corrected, or the candidate relocated**

**Candidates may NOT remove the typodont from the manikin head, loosen it, or re-tighten it after 8:30 am without a CFE present**

**Isolation dam clamps on the tooth undergoing treatment may loosen or damage the tooth. Clamp adjacent teeth, or use alternate methods—such as ligation—to secure the isolation dam**

**Only assigned teeth may be treated. If a candidate begins a procedure on the wrong tooth, he/she must notify a CFE immediately and the Endodontics exam will be stopped. Please note that the Endodontics and Prosthodontics procedures are scored independently.**

If you have completed both Endodontics procedures to your satisfaction prior to the end time (11:30 am), you may request a CFE to help you either transition to the Prosthodontics procedures or grant you permission to clean up your cubicle/workstation and turn in the required materials and paperwork prior to exiting. Once you transition to the Prosthodontics procedures, you may not return to any endodontic procedure. The CFE will record your finish time for the Prosthodontics procedures on your Progress Form, which will be four (4) hours from the time you have officially started the Prosthodontics exam. The CFEs also keep a log of all finish times during the course of the exam.

If you wish to take a break after the Endodontics section and prior to beginning the Prosthodontics procedures, do so *before* requesting a CFE to officially start the Prosthodontic procedures. Otherwise, you will lose valuable time.

**e. 11:30 am: All candidates must transition to Prosthodontics Procedures**

- The Chief or CFE will announce the end of the Endodontics treatment, and all candidates who have not yet transitioned to the Prosthodontics exam must stop immediately, request a CFE to help them, and ask the CFE to record the appropriate entries on their Progress Form. Once the CFE has granted the candidate permission to proceed, the candidate may begin the Prosthodontics procedures in any order, as well as alternate between procedures without permission
- **Impressions:** Candidates may make analog impressions and pour models for the purpose of verifying preparations (ie: parallelism for the bridge preps or for an undercut on any prep). Models and impressions **MUST** be submitted to a CFE at the completion of the exam. All model pouring must be performed in the designated location. Candidates may not remove any examination materials from the Clinic Floor, except impressions to be poured in the laboratory, and they do not need permission to go to the laboratory

**f. 3:30 pm: End of Prosthodontics Treatment Examination**

- At 3:30pm, all candidates must stop working immediately and step away from their manikins
- Candidates should request a CFE to grant them permission to dismount the typodont (no more alterations of teeth may be performed)
- Once dismounted, typodonts should be cleaned with water, soap, and a brush/cotton. Rinse all soap off and then dry the typodont thoroughly with towels and an air syringe.
- Candidates *must* be in line to turn in all required materials (see list below) no later than 3:45 pm.

**g. Exam Check-out**

CFEs will be checking and collecting all required materials at a central location on the clinic floor. Candidates must bring the following to the check-out station:

- Progress Form
- Any models, impressions, or reduction guides made during the examination
- Typodont and Typodont box containing: saved wing nut and bolt; tan-colored tag; bubble wrap pouch

- 1) The CFE at the check-out station will inspect the typodont and ask you for your sheet of candidate ID labels
- 2) Accidental typodonts:
  - a. CFE will attach a candidate ID label to the tan-colored tag, and then attach it to the typodont
  - b. CFE will attach wing nut and bolt as well, to prevent damage during shipment
  - c. CFE will place the typodont in the bubble wrap pouch and put it in the typodont box along with the Progress Form.
- 3) Candidate will clean cubicle/workstation and exit the clinic.

## F. Scoring Overview and Scoring Content

Dental Boards throughout the U.S. have worked together through ADEX to draft and refine the performance criteria for each procedure in this examination. For the majority of those criteria, gradations of competence are described across a 3-level rating scale. Those criteria appear in the manual and are the basis for the evaluation system. The three rating levels as follows:

**Adheres to Criteria:** The treatment is of acceptable quality, demonstrating competence in clinical judgment, knowledge and skill.

**Marginally Substandard:** The treatment is of marginal quality, demonstrating less than expected clinical judgment, knowledge or skill.

**Critically Deficient:** The treatment is of unacceptable quality, demonstrating critical areas of incompetence in clinical judgment, knowledge or skill.

\*3-SUB rule: If examiners confirm 3 marginally substandard over-preparation criteria on the same procedure, then the procedure will be determined to be critically deficient and the candidate will fail that procedure. SUB criteria that are part of this rule have been highlighted in yellow on the criteria sheets beginning on page 23.

**To pass the ADEX Dental Examination, you must score 75 or higher on all procedures. State statutes have set 75 as the minimum passing score and the CDCA-WREB is not permitted to round up any score less than 75.**

1. **Section II: Endodontics Content**

***Endodontics Examination – 100 points***

CONTENT	FORMAT
1. Access opening on a first molar	Performed on a manikin Time: 3 hours
2. Access opening, canal instrumentation, obturation (tooth #8)	

***Endodontics Examination Content – 100 Points***

The Endodontics Examination is a manikin-based examination consisting of:

1. Access opening and identification of canals on a posterior typodont tooth (6 criteria)
2. Access opening canal instrumentation, and obturation of an anterior typodont tooth (10 criteria)

2. **Section III: Fixed Prosthodontics Content**

***Fixed Prosthodontics Examination – 100 points***

CONTENT	FORMAT
1. Preparation – PFM crown as one 3-unit bridge abutment on a bicuspid	Performed on a manikin  Time: 4 hours
2. Preparation – Full cast metal crown on a first molar as the other abutment for the same 3-unit bridge	
3. Preparation – Ceramic crown (tooth #9)	

***Fixed Prosthodontics Content – 100 Points***

The Prosthodontics Examination is a manikin-based examination consisting of:

1. Cast metal crown preparation as a posterior abutment for a 3-unit bridge (12 criteria)
2. Porcelain-fused-to-metal crown preparation as an anterior abutment for the same 3-unit bridge, plus an evaluation of the line of draw for the bridge abutment preparations (12 criteria)
3. All-ceramic crown preparation on a central incisor (12 criteria)

## G. Penalties

The integrity of the examination process depends on fairness, accuracy, and consistency. Penalties are assessed proportionally for violations of examination standards for certain procedural errors as described below:

- Any of the following may result in a deduction of points from the score of the entire examination procedure or dismissal from the examination:
  - Improper/incomplete record keeping
  - Improper treatment selection
  - Improper/inadequate isolation
  - Improper retraction of simulated facial tissue
  - Removing or dismantling the teeth, typodont, or manikin without authorization from a CFE
  - Violation of universal precautions, infection control or disease barrier technique or failure to dispose of potentially infectious materials and clean the operatory after individual examination sections
  - Poor patient management and/or disregard for simulated patient welfare or comfort
  - Improper operator/patient/manikin position (The manikin must be mounted and maintained in a physiologically acceptable operating position while performing the Endodontic and Prosthodontic Clinical Examination procedures. The facial shroud must be maintained in the same position as the normal facial tissues)
  - Unprofessional demeanor: unkempt, unclean or unprofessional appearance; inconsiderate or uncooperative behavior with other candidates, examiners, or any member of the exam team
- The following will result in the loss of all points for an individual examination:
  - Performing treatment procedures other than those assigned
  - Performing procedures outside the authorized examination clinic area
  - Failure to complete a finished preparation.
  - Violation of examination standards, rules or guidelines (treatment may not be initiated prior to the established starting time, and treatment *must* be completed within the allotted time for each procedure)
  - Use of prohibited electronic devices in the designated examination area during the exam (ie: cell phones, pagers, computers, cameras, smart watches, recording devices, etc.)
  - Treatment of teeth other than those approved or assigned by examiners (once a procedure has been started, the procedure must be carried to completion on the assigned tooth/teeth with no substitutions permitted; if a candidate discovers that the wrong tooth has been prepared, he/she must immediately contact the CFE, and whichever procedure is in progress will be stopped)
  - Critical lack of clinical judgement
  - Non-compliance with anonymity requirements

This listing is not exhaustive, and penalties may be applied for errors not specifically listed, since some procedures will be classified as unsatisfactory for other reasons or for a **combination** of several deficiencies.

# The ADEX Dental Examination Series: Fixed Prosthodontics and Endodontics Procedures

## II. Standards of Conduct and Infection Control

- Standards of Conduct
- Infection Control

## A. Standards of Conduct

The ADEX examination strives to evaluate the candidate's clinical judgment and skills in a fair manner. In addition, conduct, decorum, and professional demeanor are evaluated. Professional misconduct is a most serious violation of examination guidelines. Substantiated evidence of professional misconduct during the course of the examination will result in automatic failure of the entire examination series. In addition, there will be no refund of examination fees and the candidate may not be allowed to re-apply for the ADEX exam for a period of one year from the time of the infraction.

All candidates are required to adhere to the rules, regulations and standards of conduct for the ADEX Dental Examination Series. Only the candidate manual, or portions thereof, are permitted in the clinic area. No other reference material is allowed. Candidate notes written in the manual are acceptable. Penalties may be assessed for violation of examination standards and/or for certain procedural errors, as defined and further described below:

- 1. Unethical personal/professional conduct:** Falsification or intentional misrepresentation of registration requirements, dishonesty, collusion, receiving unauthorized assistance, misappropriation of equipment (theft), alteration of examination records, or a candidate's failure to follow the instructions of the chief examiner or CFEs will automatically result in failure of all five examination sections. All candidates are expected to behave in an ethical and proper manner. Manikins (acting as substitute patients) shall be treated with proper concern for their safety and comfort. Improper behavior is cause for dismissal from the examination at the discretion of the chief examiner and will result in failure of the examination. Additionally, the candidate shall be denied re-examination through any testing agency who administers the ADEX dental licensure exam for one full year from the time of the infraction.
- 2. Termination of the examinations:** The CDCA-WREB reserves the right to delay or terminate the exam at any time if the candidate or examiners are threatened in any manner or other interfering events occur that are beyond the CDCA-WREB's control.
- 3. Completion of the examinations:** Examination procedures performed outside the assigned time will be considered incomplete, and the candidate will fail the examination part.
- 4. Misappropriation (theft) and/or damage of equipment:** No equipment, instruments, or materials shall be removed from the examination site without written permission of the owner. Willful or careless damage of dental equipment, typodonts, manikins or shrouds may result in failure. All resulting repair or replacement costs will be charged to the candidate and must be paid to the host site before the candidate's examination results will be released.
- 5. Assigned procedures:** Only the treatment and/or procedures assigned may be performed. Performing other treatment or procedures may result in failure of the examination.
- 6. Electronic equipment:** The use of any electronic equipment is prohibited on the clinic floor by candidates, auxiliaries, or patients during the examination. Any such use will be considered unprofessional conduct and may result in dismissal from the examination. The use of electronic recording devices or cameras by the candidate, an auxiliary, or a patient during any part of the examination is a violation of examination guidelines and may result in failure of the entire ADEX Dental Examination Series. However, intra-oral photographs may be taken by authorized examiners or school personnel during the course of the examination for the purpose of future examiner standardization and calibration.

## B. Infection Control Requirements

Although this is a simulated patient examination, all candidates must comply with and follow the current recommended infection control procedures as published by the Centers for Disease Control and Prevention once the examination treatment time officially begins (8:30 am). Infection control procedure compliance begins with the initial set-up of the unit, continues throughout the Endodontics and Fixed Prosthodontics clinical examination procedures, and includes the final clean-up of the operatory. It is the candidate's responsibility to fully comply with these procedures, as failure to do so will result in a loss of points, and any violation that could lead to direct patient harm will result in failure of the examination.

**ONE EXCEPTION:** candidates are not required to maintain protective eyewear on the manikin during manikin procedures. Infection control will be monitored by the CFEs. The Endodontics and Prosthodontics procedures are considered to be on the same patient, so it is not necessary to sanitize the operatory or sterilize instruments between these procedures.

As much as is possible, dental professionals must help prevent the spread of infectious diseases. Because many infectious patients are asymptomatic, all patients must be treated as if they are, in fact, contagious. The use of barrier techniques, disposables whenever possible, and proper disinfection and sterilization procedures are essential. Candidates must adhere to the following infection control guidelines:

### 1. **Barrier protection**

- Gloves must be worn while performing any intra-oral procedures and when cleaning up after any treatment; if rips or tears occur, don new gloves; do not wear gloves outside the operatory
- Wash and dry hands between procedures and whenever gloves are changed; do not wear hand jewelry that can tear or puncture gloves
- Wear clean, long-sleeved, closed neck uniforms, gowns, or laboratory coats, and change them if they become visibly soiled; remove gowns or laboratory coats before leaving the clinic area at any point; wear facemasks and protective eyewear during all procedures in which splashing of any body fluids could occur during actual patient care; discard masks after each patient (or sooner if the masks become damp or soiled)
- Do not wear sandals or open-toed shoes
- Cover surfaces that may become contaminated with impervious-backed paper, aluminum foil or plastic wrap; remove these coverings (while gloved), discard them, and replace them between procedures (after removing gloves)

### 2. **Sterilization and Disinfection**

- **Instruments that become contaminated must be placed in an appropriate receptacle and identified as contaminated.**
- Instruments do not need to be sterilized for this simulated examination but could be provided in an equivalent sterilization bag. However, once the examination has begun, all CDC infection control guidelines must be followed.
- If not barrier wrapped, surfaces and counter tops must be pre-cleaned and disinfected with a site-approved tuberculocidal hospital-level disinfectant

- Used sharps are to be placed in a spill-proof, puncture- resistant container; needles are to be recapped with a one- handed method or with special devices designed to prevent needle-stick injuries and disposed of properly
- Candidates must follow any additional infection control requirements established by school or state authorities during the examination.
- All waste and disposable items must be considered potentially infectious and shall be disposed of in accordance with federal, state, and local regulations

# The ADEX Dental Examination Series: Fixed Prosthodontics and Endodontics Procedures

## III. Examination Content

- Endodontics Examination Procedures
- Prosthodontics Examination Procedures
- Anterior Endodontic Preparation
- Posterior Endodontic Preparation
- Porcelain Fused to Metal Crown Preparation (PFM Crown)
- Cast Metal Crown
- Ceramic Crown

## A. Endodontics Examination Procedures

During the Endodontics Examination, each candidate will perform:

- An access opening on a posterior tooth (#14). Candidates must achieve direct access to all three canals.
- An access opening, canal instrumentation and obturation on an anterior tooth (#8). Tooth #8 is considered to have a normal size pulp chamber for a 21-year old. The size, shape, and extent of the prepared access opening should reflect such anatomy and will be graded accordingly. Canal instrumentation to a minimum size equivalent with a 35-40 file on tooth #8 will be required prior to obturation.

### 1. Important Notes About the Endodontics Examination

**Radiographs:** Since the tooth length is directly measured prior to the procedure, no radiographs are utilized before or after treatment.

**Isolation dam:** A separate isolation dam is required for each endodontic procedure, and the dam must be placed prior to beginning access preparation. Using separate isolation dams most closely simulates the approved clinical protocols in that it would reduce the potential of cross contamination between the two teeth and ease the radiographs taking process on an actual patient. **An isolation dam clamp should not be placed on the teeth on which the endodontic procedures are**

**performed, as doing so may cause the crown to separate from the root.** Clamping of adjacent teeth or ligation is acceptable. All treatment must be done with the dam in place.

**Instruments:** Other than the instruments and materials provided by the testing site, the candidates are responsible for providing the instruments, files, and materials of their choice. Rotary instruments are acceptable.

**Crown Fractures:** If the anterior endodontic tooth crown fractures during filling, contact a CFE immediately.

**Reference point:** The cemento-enamel junction (CEJ) on the facial surface should be used as the reference point to determine the fill depth in the pulp chamber.

**Filling material:** No temporary filling material, cotton pellet or restorative material should be placed in the pulp chamber.

**Marking Teeth:** Teeth may be marked on the typodonts prior to treatment as a precaution against preparing the wrong tooth. However, they may only be marked *after* the typodont has been mounted, then approved by a CFE, and the treatment-time portion of the examination has begun. The marking must be done intra-orally and must follow CDC guidelines (barrier-wrapped writing instrument). Teeth may be marked prior to placing the isolation dam.

**Gutta-Percha:** Only pink or colored gutta-percha should be used for the examination. The use of white gutta-percha is strongly discouraged. While warm gutta-percha or carrier-based, thermo-plasticized gutta-percha techniques are acceptable, it is highly recommended they not be used since they may cause damage to the plastic endodontic tooth.



## 2. Summary of Endodontics Start:

**Between 7:30 – 8:30 am, CFEs will oversee the setup of typodonts and manikin heads. By 8:30 am candidates must have in their possession all necessary instruments and materials to begin the Endodontics examination. Candidates should ensure that:**

- a. The tooth for the endodontic fill has been measured and secured in the typodont
- b. The manikin head is properly assembled; and
- c. Any defective equipment or materials have been identified and corrected or replaced. Candidates may NOT begin the endodontics examination until instructed by the CFEs.

Upon completing the endodontics procedures, candidates should request a Clinic Floor Examiner (CFE) who will confirm the above by entering the appropriate information on the Progress Form and, if you are ready to begin, will provide a start time for the Prosthodontic Examination.

## **B. Prosthodontics Examination Procedures**

During the Prosthodontics Examination, each candidate will perform:

- Preparation for a PFM crown as one 3-unit bridge abutment (#5)
- Preparation for a full cast crown (#3) as the other abutment for the same 3-unit bridge – both preps must be parallel
- Preparation for a ceramic crown (#9)

### **1. Important Notes about the Prosthodontics Examination**

**Air/Water spray:** If water spray is utilized, a mechanism to collect and remove the water must be in place.

**Preparation line of draw:** The two bridge abutment preparations must allow a line of draw.

**Patient simulation:** The correct patient/operator position must be maintained while operating. Throughout the manikin procedures, the treatment process will be observed by CFEs and evaluated as if the manikin were a patient. Manikins are not required to wear protective eyewear but are subject to the same treatment standards as a patient. The facial shroud may not be displaced other than with those retracting methods that would be reasonable for a patient's facial tissue.

**Security requirements:** No written materials may be in the operating area other than a copy of the candidate manual or parts thereof, notes written on these copies, and pertinent examination forms.

**Prohibited materials:** Impressions, registration, overlays, pre-made putty matrices, clear plastic shells, models, extra teeth, or pre-preparations are not permitted to be brought to the examination site. **Failure to follow these requirements will result in confiscation of the materials as well as dismissal from and failure of the examination.**

**Isolation dam:** No isolation dam is required for the crown preparations.

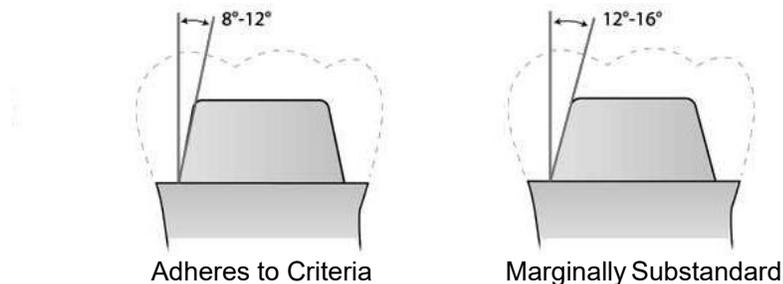
**Fractures:** If the crown fractures any time before treatment is complete, contact a CFE immediately.

**Occlusal reduction:** The tooth for the PFM crown should be prepared for a porcelain occlusal surface with an optimal occlusal reduction of 2 mm. For the full cast metal crown preparation, the occlusal reduction is optimally 1.5 mm.

**Equilibration prohibited:** No occlusal equilibration is permitted on the typodont teeth

**Crown Preparation Reduction Guide (putty matrix):** Putty matrices or reduction guides must be fabricated during the setup time or (using full infection control procedures) once the Prosthodontic Exam has begun. Two putty matrices are to be fabricated for the ceramic crown and two for the combination of the cast metal crown and PFM preps. One of each of the sets of putty matrices is to be sectioned mesio-distally and one facio-lingually over each tooth to be prepared. This may be done without the use of gloves prior to typodont mounting. Other impressions may be taken during the exam using the CDC infection control procedures. The reduction guides or putty matrices must be placed into the typodont box with the typodont at the end of the examination. All other impressions, casts, or models must also be turned in.

**Taper:** To taper is defined as to gradually become narrower in one direction. For the purposes of this examination the requirements for tapering are illustrated below:



**Taper greater than 16 Degrees is considered Critically Deficient**

## 2. Prosthodontics exam flow

**Before the start of the examination, candidates must have in their possession all necessary instruments and materials to begin the prosthodontics examination.**

At 11:30 am, the fixed-prosthodontics treatment begins for candidates who are challenging both the Endodontics and Prosthodontics parts during the exam day. There is no extension of time due to starting treatment after 11:30 am for these candidates and they **MUST complete the prosthodontics examination by 3:30 pm.** Candidates taking only the Prosthodontic examination may start as early as 8:30 am but will still have just 4 hours to complete the examination.

When the candidate has finished the prosthodontic portion of the examination, the candidate must first obtain permission from the Clinic Floor Examiner (CFE) to dismantle the typodont. A CFE will come to the candidate's clinic area, oversee the dismantling of the typodont, and assist the candidate in submitting the typodonts at the designated check-out station.

# ANTERIOR ENDODONTIC PROCEDURE

## ADEX 2022

### CRITICAL ERRORS

Wrong tooth/surface treated	No	Yes
The crown of the tooth has been reduced	No	Yes
Any part of the tooth is fractured during instrumentation or obturation	No	Yes
Any part of the tooth is perforated	No	Yes
Procedure not challenged	No	Yes

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

### ACCESS OPENING

#### Placement

ACC	Placement of the access opening is on the lingual surface directly over the pulp chamber and allows for pulp horns to be fully removed and complete debridement of the pulp chamber and straight-line access to the root canal system.
DEF	Placement of the access opening is NOT over the pulp chamber and/or does NOT allow complete debridement of the pulp chamber or access to the root canal system.

#### Size

ACC	A. The incisal aspect of the access opening is $\geq 2.0$ mm from the incisal edge which provides for a fully supported incisal edge. B. The cervical aspect of the access opening is $\geq 3.0$ mm from the lingual CEJ which provides for a fully supported cingulum. C. The widest portion of the preparation mesio-distally is $\leq \frac{1}{2}$ of the lingual surface which provides for fully supported marginal ridges (approximately 1.0 mm). D. Size of the access opening allows for complete removal of pulp horns.
DEF	A. The incisal aspect of the access opening is $< 2.0$ mm from the incisal edge which compromises the incisal edge. B. The cervical aspect of the opening is $< 3.0$ mm from the lingual CEJ which compromises the cingulum. C. The preparation compromises the mesial and/or distal marginal ridge(s) ( $\leq 1.0$ mm). D. The size of the access opening does NOT allow for removal of pulp horns.

#### Internal Form

ACC	From the lingual surface to the cervical portion, the internal form tapers to the canal opening with slight ledges.
DEF	Internal form exhibits excessive gouges, which compromise the integrity of the tooth.

### CANAL INSTRUMENTATION

#### Cervical Portion

ACC	Canal is shaped to a continuous taper to allow adequate debridement and obturation and the cervical portion of the canal is of appropriate location and size to allow access to the apical root canal system.
DEF	Cervical portion of the canal is grossly over-prepared affecting the integrity of the tooth structure.

#### Mid-Root Portion

ACC	Mid-root portion of the canal blends smoothly with the cervical portion without ledges or shoulders.
DEF	Mid-root portion of the canal has significant instrumentation irregularities that will compromise obturation.

#### Apical Portion

ACC	Apical portion of the canal is prepared to the anatomical apex of the tooth or $\leq 2.0$ mm short of the anatomical apex.
DEF	A. Apical portion of the canal is over-prepared beyond the anatomical apex. B. Apical portion of the canal is transported to the extent that the apical portion of the canal is not instrumented. C. Apical portion is under-prepared $> 2.0$ mm short of the anatomical apex.

ROOT CANAL OBTURATION	
Overfill/Underfill	
ACC	Root canal is obturated with gutta percha at the anatomical apex or $\leq 2.0$ mm short of the root apex.
DEF	Root canal is obturated with gutta percha $> 2.0$ mm short of the anatomical apex or beyond the anatomical apex.
Voids in Gutta Percha	
ACC	Apical third of the obturation in the root canal is dense and without voids.
DEF	A. There are significant voids throughout the obturation of the root canal. B. There is no gutta percha present in the root canal. C. A material other than gutta percha was used to obturate the canal.
Filled above/below CEJ	
ACC	A. Gutta percha in the root canal is $\leq 3.0$ mm apical to the CEJ when measured from the facial or gutta percha B. Gutta percha and/or sealer is/are evident in the pulp chamber extending $\leq 2.0$ mm coronal to the CEJ when measured from the facial.
DEF	A. Gutta percha in the root canal is $> 3.0$ mm apical to the CEJ when measured from the facial. B. Gutta percha and/or sealer is/are evident in the pulp chamber extending $> 2.0$ mm coronal to the CEJ when measured from the facial. C. There is restorative material present in the pulp chamber.
Separated File	
ACC	File is not separated; or, file is separated in the root canal but does not affect obturation of the root canal.
DEF	A file is separated in the root canal and either prevents the obturation or allows obturation at a critically deficient level.

# POSTERIOR ENDODONTIC PROCEDURE

## ADEX 2022

### CRITICAL ERRORS

Wrong Tooth/surface treated	No	Yes
The crown of the tooth has been reduced	No	Yes
Any part of the tooth is fractured during instrumentation or obturation	No	Yes
Any part of the tooth is perforated	No	Yes
Procedure not challenged	No	Yes

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

### ACCESS OPENING

#### Placement

ACC	Placement of the access opening is over the pulp chamber allowing for debridement of the pulp chamber and straight-line access to the three root canals located in the tooth.
DEF	Placement of the access opening is not over the pulp chamber and/or does not allow complete debridement of the pulp chamber or access to the 3 root canals.

#### Size

ACC	Access opening is in the mesial triangular pit and central fossa of the tooth and the following are true: A. The mesial extent of the access preparation is $\geq 2.0$ mm from the mesial marginal ridge. B. The buccal extent of the access preparation is $\geq 1.0$ mm from the line bisecting the mesio-buccal and disto-buccal cusp tips. C. The distal extent of the access opening is $\geq 1.0$ mm mesial to the distal oblique groove. D. The palatal extent of the access preparation is $\geq 1.0$ mm from the mesiolingual cusp tip.
DEF	A. The mesial extent of the access preparation is $< 2.0$ mm distal to the mesial marginal ridge. B. The buccal extent of the access preparation is $< 1.0$ mm from the line bisecting the mesio-buccal and disto-buccal cusp tips. C. The distal extent of the access preparation is $< 1.0$ mm mesial to the distal oblique groove. D. The palatal extent of the access preparation is $< 1.0$ mm from the mesio-lingual cusp tip access opening. E. The access size is too small: $< 2.5$ mm at its widest mesio-distally and/or $< 2.5$ mm at its widest bucco-lingually.

#### Depth

ACC	The depth of the access preparation removes the entire roof of the pulp chamber.
DEF	A. The pulpal floor at the center of the floor is $> 10.0$ mm deep when measured from the buccal cavosurface margin of the access preparation. B. The depth of the access preparation does not remove the roof of the pulp chamber to the extent that all pulp tissue can be removed.

#### Internal Form

ACC	The internal form of the access preparation leaves $\geq 1.0$ mm of supported lateral tooth structure at any point of the preparation and tapers to the canal orifices with no or slight gouges.
DEF	The internal form of the access preparation leaves $< 1.0$ mm of lateral supported tooth structure at any point of the preparation and/or tapers to the canal orifices with gross ledges that will inhibit access to the root canal orifices.

## TREATMENT MANAGEMENT

## Condition of Adjacent Tooth/Teeth

ACC	Any damage to adjacent tooth/teeth can be removed with polishing without adversely altering the shape of the contour and/or contact.
DEF	There is gross damage to adjacent tooth/teeth, requiring a restoration.

## Condition of Surrounding Tissue

ACC	There is slight damage to simulated gingiva and/or typodont consistent with the procedure.
DEF	There is gross iatrogenic damage to the simulated gingiva and/or typodont inconsistent with the procedure.

# PFM CROWN PREPARATION

## ADEX 2022

### 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 $\leq 0.5$ mm below to $\leq 1.5$ mm above the simulated free gingival margin.
SUB	A. The cervical margin is over-extended $> 0.5$ mm below the simulated free gingival margin.
DEF	A. The cervical margin is over-extended by $> 0.5$ mm below the simulated free gingival margin, causing visual damage to the typodont. B. The cervical margin is under-extended by $> 1.5$ mm above the simulated free gingival margin.
Margin/Definition	
ACC	The cervical margin is continuous but may be slightly rough and may lack some definition. The cervical bevel, when used, is $\leq 1.5$ mm, and/or may lack some definition.
SUB	A. The cervical bevel, when used, is $> 1.5$ mm but $\leq 2.0$ mm.
DEF	A. The cervical bevel, when used, is $> 2.0$ mm. B. The cervical margin has no continuity or definition. C. The cervical margin is cupped or J-shaped.
Margin/Facial Width	
ACC	The facial shoulder is $> 0.5$ mm but $\leq 2.0$ mm in width.
SUB	A. The facial shoulder is reduced $> 2.0$ mm but $\leq 2.5$ mm.
DEF	A. The facial shoulder is $> 2.5$ mm in width. B. The facial shoulder is $< 0.5$ mm in width.
Margin/Lingual Width	
ACC	The margin width varies slightly from visually & explorer detectable to $\leq 1.0$ mm.
SUB	A. The lingual margin is $> 1.0$ mm but $\leq 2.0$ mm.
DEF	A. The lingual margin is $> 2.0$ mm. B. The lingual margin is feathered and/or is not explorer detectable.
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 $20^\circ$ 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 SHOULDER

## Axial Tissue Removal

ACC	The axial tissue removal is $\geq 0.5$ mm but $\leq 2.0$ mm.
-----	--

SUB	A. The axial tissue removal is $> 2.0$ mm but $\leq 2.5$ 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 $\leq 12^\circ$ per wall.
-----	---

SUB	There is excessive taper that is $> 12^\circ$ and $\leq 16^\circ$ per wall.
-----	---

DEF	Taper is grossly over-reduced $> 16^\circ$ per wall.
-----	--

## Occlusal Reduction

ACC	Occlusal reduction is $\geq 1.0$ mm but $\leq 2.5$ mm.
-----	--

SUB	A. Occlusal reduction is $> 2.5$ mm but $\leq 3.0$ mm.
-----	--

DEF	A. Occlusal reduction is $> 3.0$ 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	The internal line angles or cusp tip areas are excessively sharp with no evidence of rounding.
-----	--

## 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.
-----	--

# CAST METAL CROWN PREPARATION

## ADEX 2022

### 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 $\leq 1.5$ 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 $\leq 1.5$ mm and/or may lack some definition.
SUB	A. The cervical bevel, when used, is $> 1.5$ mm but $\leq 2.0$ 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 $\leq 1.0$ mm.
SUB	The margin width is $> 1.0$ mm but $\leq 2.0$ 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 $20^\circ$ 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 $\leq 2.0$ mm.
SUB	A. The axial tissue removal is $> 2.0$ mm but $\leq 2.5$ 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 $\geq 1.0$ mm but $\leq 2.0$ mm.
SUB	A. Occlusal reduction is $> 2.0$ mm but $\leq 2.5$ 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.

# CERAMIC CROWN PREPARATION

## ADEX 2022

### 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 $\leq 0.5$ mm below the simulated free gingival margin to $\leq 1.5$ mm incisal to the simulated free gingival margin.
SUB	A. The cervical margin is over-extended $> 0.5$ mm below the crest of the simulated free gingival margin.
DEF	A. The cervical margin is over-extended $> 0.5$ mm below the simulated free gingival margin, causing visual damage to the typodont. B. The cervical margin is under-extended by $> 1.5$ mm above the simulated free gingival margin.
Margin/Definition/Unbeveled	
ACC	The cervical margin is continuous but may be slightly rough and may lack some definition.
DEF	A. The cervical margin has no continuity and/or definition. B. The margin is beveled. C. The margin is cupped or J-shaped.
Margin/Cervical Width	
ACC	The cervical margin width is $\geq 0.5$ mm but $\leq 1.5$ mm in width.
SUB	A. The cervical margin width is $> 1.5$ mm but $\leq 2.0$ mm.
DEF	A. The cervical margin width is $> 2.0$ mm in width. B. The cervical margin width is $< 0.5$ mm.
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 $20^\circ$ 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/Lingual Tissue Reduction	
ACC	The axial/lingual tissue reduction is $\geq 1.0$ mm but $\leq 2.0$ mm.
SUB	A. The axial/lingual tissue reduction is $> 2.0$ mm but $\leq 2.5$ mm.
DEF	A. The axial/lingual tissue reduction is $> 2.5$ mm. B. The axial/lingual tissue reduction is $< 1.0$ 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 $\leq 12^\circ$ per wall.
SUB	There is excessive taper that is $> 12^\circ$ but $\leq 16^\circ$ per wall.
DEF	The taper is grossly over-reduced $> 16^\circ$ per wall.
Incisal Reduction	
ACC	The incisal reduction is $\geq 1.0$ mm but $\leq 3.0$ mm.
SUB	The incisal reduction is $> 3.0$ mm but $\leq 3.5$ mm.
DEF	A. The incisal reduction is $> 3.5$ mm. B. The incisal reduction is $< 1.0$ mm.
External/Internal Line Angles	
ACC	External and/or internal line angles may be rounded but irregular.
DEF	The external and/or internal line angles are excessively sharp with no evidence of rounding.
Lingual Wall Height	
ACC	The lingual wall height is $\geq 1.0$ mm.
DEF	The lingual wall height is $< 1.0$ mm.
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 the 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.

# The ADEX Dental Examination Series: Fixed Prosthodontics and Endodontics Procedures

## IV. Examination Forms

- Progress Form

