

# Root Canal Therapy (Simulated) Competency Exam

PCC 107 CD

<b>Course #, Course Name</b> PCC 107 CD Clinical Endodontics II		<b>Examiner Name</b>		<b>Exam Date</b>
<b>Student Name</b>	<b>Student ID</b>	<b>Examiner Signature</b>		<b>Start Time</b>
<b>Patient EHR # (if applicable)</b>		<b>Final Score</b>		<b>End Time</b>
		<b>Total:</b>		
<b>Exam Name</b> Root Canal Therapy (Simulated) CE		Passing Score:	≥18	<b>This is an individual, high stakes exam.</b>
		Total Possible:	25	

*Examiner name, exam date/start time, student name/ID, patient EHR# above must be completed before the exam can begin.*

<b>CODA Competency</b> 2-10, Critical Thinking and Problem-Solving; 2-17, Treating Diverse Patients; 2-22, Scientific and Lay Literature; 2-24a, Patient Assess, Tx Planning & Prognosis; 2-24e, Local Anesthesia; 2-24j, Pulp Therapy	<b>SOD Competency</b> 2- Applies course-based knowledge; 4- Assessment, diagnosis, treatment planning; 5- Delivers safe and effective care to a diverse patient pool; 11- Safe and effective procedural skills
<b>Exam Instructions</b> Required Fourth-Year CE taken in Mock WREB: <input type="checkbox"/> Exam must be completed in one three-hour lab session <input type="checkbox"/> Must be on typodont mounted on mannequin, and must be: <ul style="list-style-type: none"> <li>o a complete root canal on an anterior tooth, and</li> <li>o access cavity preparation on a posterior tooth</li> </ul> <input type="checkbox"/> Criteria based on WREB exam criteria	<b>Learning Objectives</b> <input type="checkbox"/> Properly isolate the tooth with rubber dam <input type="checkbox"/> Perform appropriate access cavity preparation <input type="checkbox"/> Clean and shape the root canal system efficiently and safely <input type="checkbox"/> Identify the correct size for master cone before obturation <input type="checkbox"/> Fill the canal system with warm vertical obturation technique <input type="checkbox"/> Temporize the tooth
<b>Outcome if Fail</b> The exam is a 'No Pass' if the score is < 70%, or if there are any critical errors, or if the exam is not completed within the allotted time. The student is encouraged to seek guidance from the faculty examiner and/or course director for re-learning, and then must attempt the exam again, when deemed ready, on a different typodont as advised by the faculty examiner and their clinical coach.	
<b>Case Selection Criteria</b> Case selection based on WREB exam criteria.	

FACTOR 1: ACCESS OPENING				
4 – Optimal	3	2	1	0 – Critical errors
Optimum outline and access form with no obstructions; all canals identified; roof and pulp horns removed	Slight deviation from optimal: slight under-extension of outline form but walls smooth but all canals identified and roof and pulp horns removed	Moderate deviation from optimal: moderate under- or over-extension of outline form; minor irregularities for wall smoothness but all canals identified and roof and pulp horns removed	Multiple/Major deviation(s) from optimal: crown integrity compromised by over-extension but tooth remains restorable; all canals identified but minor roof and pulp horns remain	Tooth is NOT restorable after access procedure or perforation; structural compromise; canal(s) missed or unidentified
Score Awarded:	Comments:			
FACTOR 2: CANAL PREPARATION TECHNIQUE				
4 – Optimal	3	2	1	0 – Critical errors
Optimum canal length determination and preparation within 0.5-1.0 mm of radiographic apex; maintenance of original canal position and integrity	Slight deviation from optimal: adequate canal length determination and preparation within 1.5 mm short of radiographic apex; mild deviations of original canal shape	Moderate deviation from optimal: acceptable canal length determination and preparation within 2.0 mm short of working length; moderate deviations of original canal shape	Multiple/Major deviation(s) from optimal: canal length and preparation shorter than original working length; canal length >2.0 mm short or 1.0 mm long of radiographic apex; severe deviations of original canal shape but treatable; separated instrument that does NOT prevent canal preparation	Working length determination >2.0 mm short or long of radiographic apex; sodium hypochlorite accident; canal perforated or NOT treatable; separated instrument preventing canal preparation
Score Awarded:	Comments:			
FACTOR 3: MASTER CONE FIT				
4 – Optimal	3	2	1	0 – Critical errors
Optimum cone fit and length verification within 0.5-1.0 mm of radiographic apex; maintenance of canal position and integrity as demonstrated in cone fit	Slight deviation from optimal: adequate cone fit and length verified within 1.5 mm short of radiographic apex; mild deviations of original canal shape	Moderate deviation from optimal: acceptable cone fit and length verified within 2.0 mm short of radiographic apex; moderate deviations of original canal shape; achieves tugback before lateral obturation	Multiple/Major deviation(s) from optimal: cone length determination >2.0 mm short or long from radiographic apex; cone fit >2.0 mm short or >1.0 mm long of radiographic apex	Master cone too small; master cone too large; master cone fit >2.0 mm short or long of radiographic apex
Score Awarded:	Comments:			

FACTOR 4: OBTURATION TECHNIQUE							
4 – Optimal		3	2	1	0 – Critical errors		
Achieves dense fill within 0.5 - 1.0 mm short of radiographic apex; none or minor over-extension of sealer; no solid core material over-extended		Slight deviation from optimal: achieves dense fill within the apical two-thirds and less than 1.5 mm short of radiographic apex; less than 1.0 mm of sealer extruded	Moderate deviation from optimal: achieves dense fill in apical third without voids; solid core material 1.5 - 2.0 mm short or 1.0 mm long of radiographic apex; 1.0 - 2.0 mm of sealer extruded	Multiple/Major deviation(s) from optimal: apical third has slight to moderate voids; solid core material 2.0 - 3.0 mm short or 1.0 - 2.0 mm long; more than 2.0 mm of sealer extruded	Solid core material greater than 3 mm short or greater than 2 mm long of radiographic apex and/or significant voids throughout fill		
Score Awarded:		Comments:					
FACTOR 5: COMPLETION OF CASE							
4 – Optimal		3	2	1	0 – Critical errors		
Optimum evidence of documentation (e.g., radiographs, clinical notes, assessment of outcomes)		Slight deviation from optimal: thorough evidence of documentation (e.g., radiographs, clinical notes, assessment of outcomes)	Moderate deviation from optimal: acceptable documentation (e.g., radiographs, clinical notes, assessment of outcomes)	Multiple/Major deviation(s) from optimal: evidence of incomplete documentation	Prognosis likely impacted by iatrogenic treatment factors; improper or no documentation		
Score Awarded:		Comments:					
Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	TOTAL SCORE		
___/4	___/4	___/4	___/4	___/4	___/20		

FACTOR A: CRITICAL THINKING							
5	4	3	2	1	0	Score	Comments
<i>Identifies clinical problem; critically interprets available evidence and understands nuance; coherently analyzes and defends clinical choices; synthesizes clinical findings with evidence to provide a persuasive argument for the best option(s); has insight into his/her own reasoning and decision-making.</i>	<i>Identifies clinical problem; gathers and critiques valid evidence; makes inferences about how evidence will relate to patient outcomes; describes the implications of various choices based on evidence; identifies best options based on the above.</i>	<i>Identifies clinical problem; gathers and discusses valid evidence and rejects inferior evidence; describes his/her reasoning process superficially; elaborates some options based on findings the above.</i>	<i>Identifies clinical problem; gathers basic clinical information and scientific evidence to aid in decision-making.</i>	<i>Identifies problem or question of interest, but is unable to reason further.</i>	<i>Learner cannot identify the problem of interest, is unable to gather information that would aid in decision-making, and bases decisions on opinions OR anecdotes rather than evidence.</i>	N/A	N/A
FACTOR B: COMMUNICATION & DIVERSE PATIENT POOL							
5	3	0			Score	Comments	
<i>Does not turn back to patient. At or below eye level when speaking with patient. Communicates respectfully with patient taking into account health literacy. Recognizes need for and uses interpreter as appropriate. Discusses and incorporates patient's health-related beliefs- as related to culture, religion, etc.- into treatment plan or treatment.</i>	<i>Mostly does not turn back to patient. Mostly is at or below eye level when speaking with patient. Communicates respectfully with patient, taking into account health literacy. Does not recognize need for interpreter OR does not discuss or incorporate patient's health-related beliefs.</i>	<i>ANY of the following will result in a critical error: Overtly disrespectful OR recognizes need for interpreter and does not arrange for interpreter services OR disrespectfully discredits patient's beliefs.</i>			N/A	N/A	
FACTOR C: INFECTION CONTROL							
5	3	0			Score	Comments	
<i>Provider PPE appropriately worn throughout procedure and during cubicle breakdown including mask, gloves, protective eyewear, tied gown, closed shoes. Hair out of working space. Nametag on. Hand hygiene performed. Clean and contaminated areas maintained. No cross-contamination. Sharps are capped when on table.</i>	<i>Provider PPE worn mostly appropriately, but gown untied OR eyewear worn after clean gloves OR eyewear is not fully enclosed OR hair in face but has not touched treatment area</i>	<i>ANY of the following will result in a critical error: Gross cross- contamination including clean items placed in area of trash receptacle. PPE for patient or provider not worn during cubicle breakdown or while instruments are being used. Hair touches treatment area. Nametag not worn. Sharps uncapped on table.</i>			N/A	N/A	

FACTOR D: PRIDE VALUES AND PROFESSIONALISM					
5	3	1	0	Score	Comments
Treats patient, peers, staff, and faculty with respect & contributes to a positive work environment. Puts patients' needs before own. Punctual and prepared. Displays honesty, integrity, and accountability.	Treats patient, peers, staff, and faculty with respect though may not contribute to a positive environment. Puts patients' needs first. Punctual and mostly prepared. Displays honesty, integrity, and accountability.	Prioritizes own needs ahead of patient care (patient safety is not compromised) or best practices, late or unprepared for patient care, disregards clinic safety measures.	ANY of the following will result in a critical error: Academic dishonesty, unethical behavior OR Treats patient, peers, staff, or faculty with gross disrespect OR Breaches clinic safety measures (start checks, unsupervised practice, unauthorized change of treatment plan, etc).	N/A	N/A
FACTOR E: SELF-ASSESSMENT					
5	3	0	Score	Comments	
Accurately assesses MOST strengths and areas for improvement in clinical performance, including patient management, infection control, and professionalism.	Accurately assesses SOME strengths and areas for improvement in clinical performance, including patient management, infection control, and professionalism.	Grossly inaccurate in ability to assess strengths and areas for improvement in clinical performance, including patient management, infection control, and professionalism.			
FACTORS A-E TOTAL SCORE				___/5	

**SUMMARY OF SCORES/SUM OF SCORES:**

Factors 1-5	Factor E	TOTAL SCORE
___/20	___/5	___/25
Pass ≥18		

Any critical errors? Yes / No
Exam completed on time? Yes / No
Any critical error or exam not completed on time will result in automatic failure of the exam.

Outcome (circle one)	
PASS	FAIL