

**The Royal College of Dentists of Canada
National Dental Specialty Examination (NDSE)**

Examiner-in-Chief Report, September 2024

In 2023 The Royal College of Dentists of Canada (RCDC) resumed responsibility for administering the National Dental Specialties Examination (NDSE) as the credentialing exam for beginning practice for all dental specialists in Canada (Dental Public Health, Endodontics, Oral and Maxillofacial Surgery, Oral Medicine/Oral Pathology, Oral Radiology, Orthodontics, Pediatric Dentistry, Periodontics and Prosthodontics). Examinations were held in June 2024 at 9 Canadian and 15 US sites.

The examination is composed of written and constructed response type questions of variable length and content, based on the requirements of each specialty. Examination blueprints were developed previously by the RCDC and the National Dental Examining Board of Canada (NDEB) and these were reviewed and updated this year. Question development and review workshops were held independently for each specialty in the presence of the Examiner-in-Chief and/or Assistant Examiner-in-Chief. Once the examinations were constructed, but prior to administration, standard setting workshops for each specialty were held to set a pass score. Following administration of the NDSE, an item analysis was performed on each question on each exam and items that did not perform well were zero-valued or removed from the calculation of the pass mark.

The results of the specialty examinations are reported in Table 1, with comparisons to the previous year. The number of examinees as well as the percentage of those who passed are reported for all specialties, but normally the percentage of examinees that passed each examination should only be considered a useable statistic for those examinations with at least 30 candidates. This is in keeping with the statistical convention that absolute numbers should be reported rather than percentages when there is a small sample size (30 or less), because presentation of data as percentages can be misleading. Nonetheless, we have reported passing percentages for all disciplines for the sake of convenience. Overall, 120 of all 153 examinees received a passing grade (all specialties) for the 2024 NDSE, with a pass rate of 78% as compared to a pass rate of 79% in 2023.

Reliability was estimated for the 2024 specialty examinations using Cronbach's alpha for those specialties with sufficient sample size (20 candidates or greater). Cronbach's alpha for four specialties and comparisons to the previous year were: Oral and Maxillofacial Surgery 0.90 (2024), 0.90 (2023); Orthodontics, 0.88 (2024), 0.91 (2023); Pediatric Dentistry, 0.88 (2024), 0.91 (2023); and Prosthodontics 0.89 (2024), (no statistic in 2023 due to fewer than 20 candidates). As a general guideline, a reliability of 0.80 or higher is desirable for a high-stakes assessment, which these examinations exceeded. Based on these statistics, we believe that the current NDSE represents a reliable and objective method for evaluating beginning dental specialists.

It should be mentioned that the NDSE Committee has committed to several new initiatives in the coming year(s) which will affect the future of the NDSE. First is supporting the Canadian Dental Regulatory Authorities (CDRAF) with the establishment of competencies for each dental specialty, a multi-year endeavor with input and assistance from relevant stakeholders. These will be instrumental in the development of new NDSE Blueprints for all dental specialties, an initiative which will be led by the NDSE Committee. Additionally, the NDSE Committee will work towards the establishment of an NDSE for Dental Anesthesia in 2026.

In conclusion, I would like to thank the RCDC for the opportunity to assist in the development of the current NDSE. I would also like to acknowledge and thank the NDEB for the invaluable assistance that they provided to the RCDC throughout this transition year.

In closing, I wish to note that many people have been involved in the creation and the administration of the 2024 NDSE and that we appreciate their hard work and dedication. In particular, I would like to thank our NDSE Coordinator Maria Clemente, our NDSE Admission Coordinator Karanvir Ghuman, and our NDSE Manager, Liz Daly for their excellent support. I want to acknowledge our NDSE Committee for their support and guidance and also our Specialty Team leads and workshop participants who constructed questions and helped vet the final examinations. Thanks to our psychometricians at Meazure Learning for their expertise. Finally, I would like to thank our Assistant Examiner-in-Chief, Dr. Daniel Turgeon, our Director of Examinations, Sean Gehring and our Managing Director of the RCDC, Amandine Perdebat, for their wisdom and guidance in all matters relating to the NDSE.

Respectfully Submitted,



Dr. Robert Loney

Examiner-in-Chief, National Dental Specialty Examination

Table 1. Number of NDSE Candidates and Pass Rates by Specialty

Specialty	# of Candidates June 2024	Pass Rate June 2024	# of Candidates June 2023	Pass Rate June 2023
Dental Public Health	NA	NA	NA	NA
Endodontics	14	100% (14/14)	21	71% (15/21)
Oral & Maxillofacial Radiology/ Oral Medicine/Oral Pathology/Oral Medicine & Oral Pathology (4 examinations grouped for privacy)	13	38% (5/13)	NA	NA
Oral & Maxillofacial Surgery*	20*	90% (18/20)	22	86% (19/22)
Orthodontics*	37*	89% (33/37)	34	91% (31/34)
Pediatric Dentistry*	33*	91% (30/33)	23	74% (17/23)
Periodontics	15	87% (13/15)	31	94% (29/31)
Prosthodontics*	21*	33% (7/21)	11	45% (5/11)
Totals	153	78% (120/153)	147	79% (117/147)

NA – Data for specialties with fewer than 10 candidates is not available for distribution for privacy reasons.

*** Specialties with ≥ 20 candidates in 2024, the Cronbach’s alpha reliability statistic was calculated:**

Oral & Maxillofacial Surgery: 0.90

Orthodontics: 0.88

Pediatric Dentistry: 0.88

Prosthodontics: 0.89