

COVID-19: Managing Infection Risks During In-Person Dental Care

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CONTENTS

Chief Medical Officer of Health Issues Updated Directive # 2: Dentists Must Cease Certain Non-Emergent and Non-Urgent Surgeries and Procedures Until Further Notice	2	3. Providing In-Person Care	10
Introduction	3	Use of PPE During Non-Aerosol Generating Procedures	10
Guidance is Evidence-Informed	3	Intra-Oral Radiographs	12
The College is Acting in Partnership	3	4. Aerosol-Generating Procedures	12
Additional Resources	3	Preparing the Operatory for Aerosol-Generating Procedures	12
Principles	5	Use of PPE During Aerosol-Generating Procedures	13
Guidance	5	Using an Oral Rinse	13
1. Preparing the Office	5	Mitigating High Risk Aerosols	13
Review of Personal Protective Equipment	5	Clearing the Air of Aerosol (Fallow Time) Following Aerosol-Generating Procedures	14
General Staff Requirements	6	5. Patient Departure and Office Sanitization	15
Office Setup	7	Patient Departure Protocol	15
2. Patient Intake	8	Office Sanitization	16
Scheduling Appointments	8	6. COVID-19 Exposure in the Practice	16
Patient Arrival Protocol	8		
Additional Requirements for Patients who have Screened or Tested Positive for COVID-19	9		



Royal College of
Dental Surgeons of Ontario

Chief Medical Officer of Health Issues Updated Directive # 2: Dentists Must Cease Certain Non-Emergent and Non-Urgent Surgeries and Procedures Until Further Notice

The Chief Medical Officer of Health has issued a revised [Directive # 2 for Health Care Providers](#).

The aim of the revised Directive is to preserve system capacity to respond effectively to COVID-19 by stopping or deferring procedures that:

1. risk placing further strain on intensive care resources (e.g., procedures that carry a higher risk of subsequent hospitalizations), and/or
2. utilize health human resources that could be redeployed to intensive care units.

See the Ministry's [FAQ](#) for more information.

What does this mean for dentists?

In-keeping with this new Directive, dentists must cease immediately:

- Non-emergent and non-urgent major surgical procedures (e.g., osteotomies, use of rigid fixation) that carry a substantive risk of resulting in the use of emergency medical services or other hospital services.
- Other non-urgent and non-emergent dental procedures that carry a substantive risk of resulting in the use of emergency medical services or other hospital services.
- Sedation and general anesthetic procedures requiring a sedation or anesthetic team, as described in the RCDSO's [Standard of Practice on the Use of Sedation and General Anesthesia](#) in Dental Practice.

As noted, the procedures above may be provided if they are for the treatment of **emergency** or **urgent** care that cannot be delayed (see the College's definitions for emergency, urgent, and non-essential care). Additionally, Directive #2 outlines an exception for procedures provided in pediatric specialty hospitals.

Routine dental procedures and services performed by dentists and dental hygienists in community settings may continue.

INTRODUCTION

Without careful planning and appropriate guidance, dental offices are at a high risk for spreading COVID-19 given the aerosol generating nature of dental procedures, the proximity of the operating field to the upper respiratory tract, and the number of patients seen per day. Dentists providing any degree of in-person care must comply with the direction of government and the College to maintain the safety of patients and staff, and to not contribute to the transmission of COVID-19.

Guidance is Evidence-Informed

The guidance contained in this document has been informed by current best practices and the best available evidence. Where professional consensus is lacking or the available evidence is unclear, the College's guidance takes a precautionary approach that prioritizes the safety and well-being of patients, staff, the broader public, and dentists.

As Ontario's landscape evolves and as updated evidence becomes available, the College will update the guidance contained in this document.

The College is Acting in Partnership

Responding to the COVID-19 pandemic is a multi-stakeholder effort involving not only this College but a broad spectrum of partners throughout the healthcare landscape, including the Ontario Dental Association, other health regulatory bodies, academic researchers, municipal, provincial, and federal governments, and front line health care workers, among many others.

The role and mandate of the College is to regulate the profession of dentistry in the public interest. As a result, the College's guidance is focused primarily on ensuring public protection. Broader systems issues, including how and when to open the Ontario economy, whether and how to restrict services, and the supply chain of personal protective equipment (PPE) are not within the College's mandate or authority to address.

Additional Resources

This document should be read in conjunction with related RCDSO Guidance Documents and Standards of Practice.

The College's guidance is written to align with the positions and direction of the Chief Medical Officer of Health, Federal guidance, and the Provincial Government.

Additional Applicable Resources Include:

- [RCDSO: Definitions for emergency, urgent and non-essential care.](#)
- [RCDSO: COVID-19 FAQs.](#)
- [RCDSO: Guidance for the Use of Teledentistry.](#)
- [RCDSO: Infection Prevention and Control Standard of Practice.](#)
- [COVID-19: Directive #2 for Health Care Providers.](#)
- [COVID-19 Directive #2: Questions & Answers.](#)
- [COVID-19 Operational Requirements: Health Sector Restart.](#)
- [Public Health Ontario: COVID-19 in Dental Care Settings.](#)
- [Public Health Ontario: Considerations for Community-Based Health Care Workers on Interpreting Local Epidemiology.](#)
- [Public Health Ontario: Open Operatory Dental Setting Infection Control Practices and Risk of Transmission during Aerosol-Generating Procedures.](#)
- [Ministry of Health: COVID-19 Patient Screening Guidance Document.](#)
- [Ministry of Health: Management of Cases and Contacts of COVID-19 in Ontario \(Version 11.0\).](#)
- [Ministry of Health: COVID-19 Quick Reference Public Health Guidance on Testing and Clearance.](#)
- [Centers for Disease Control and Prevention \(CDC\) Guidance for Dental Settings A.](#)
- [Ontario Government: COVID-19 Response Framework: Keeping Ontario Safe and Open \(Regional Approach\).](#)
- [Ontario Government: COVID-19 Public Health Measure and Restrictions.](#)

PRINCIPLES

The Following principles form the foundation for this guidance:

- 1 Dentists have a professional, legal, and ethical responsibility to provide care in a manner that is both safe and effective.
- 2 The health and safety of patients, the public, and practitioners is the top priority. All protocols for treatment and support will put safety first.
- 3 The College's guidance to dentists is informed by the direction provided by the Chief Medical Officer of Health, the Minister of Health, and others.
- 4 Patients need continuity of care. Patients of record must have access to their dentist for guidance, support, and referral, where needed.
- 5 Patient access to oral healthcare must be balanced with the risks of spreading COVID-19.
- 6 Guidance is based on the best available evidence and data. In the absence of clear evidence, guidance will prioritize caution and safety.
- 7 Return to practice will occur in well-defined stages that balance a return to the "new normal" with the risks of spreading COVID-19.
- 8 The College will prioritize the use of teledentistry to assess risk and appropriately triage patients.

GUIDANCE

1. PREPARING THE OFFICE



Review of Personal Protection Equipment

- 1 Dentists should take an inventory of personal protective equipment (PPE) and use this inventory to help inform the volume and scope of care that can be safely provided.
 - a. Dentists should use PPE appropriately to prevent unnecessary use of limited supplies and other PPE resources (e.g., N95 respirators [or the equivalent, as approved by Health Canada](#)).
 - b. N95 respirators (or the equivalent) should be reserved for situations where risks are highest, especially aerosol-generating procedures (AGPs).



General Staff Requirements

- 2 Dentists must meet with staff and thoroughly review and explain the guidance contained in this document as well as any new office policies and procedures.
- 3 Dentists must require staff to wear PPE as appropriate to their role (see Table 1 below).
- 4 Because clothing worn in the office can become contaminated with COVID-19, dentists and staff must change into office clothes (e.g. scrubs) and footwear immediately upon reporting to work.
 - a. Clothes worn in the office must not be worn outside of the office (e.g., home), and should be laundered after every shift (for more information on the laundering requirements for scrubs and protective gowns, please see the College's [COVID-19 FAQ](#)).
 - b. Laundry bins/containers should be lined with a barrier (such as a garbage bag) to avoid cross-contamination during the storage and transportation process.
- 5 Dentists are advised to limit the number of staff in the practice at one time.
- 6 Dentists are advised to ensure that staff breaks are structured in a way to support physical distancing.
- 7 Dentists must advise staff to conduct hand hygiene frequently by using an alcohol-based rub (70–90% ABHR) or soap and running water (especially before and after any contact with patients, after contact with high-touch surfaces or equipment, and after removing PPE).
- 8 Dentists must require staff to maintain physical distancing of at least of 2 metres except as required to provide patient care.
- 9 Dentists must require staff to wear appropriate face coverings at all times except as needed for eating and drinking (see Table 1).
- 10 Dentists must ensure that staff are screened for COVID-19 prior to beginning each shift (e.g., by using the [COVID-19 screening questions developed by the Ontario Ministry of Health](#)).
- 11 Staff that begin experiencing symptoms of COVID-19 while at work must immediately go home. Staff should be advised to self-isolate and contact their primary care provider or Telehealth Ontario at 1-866-797-0000 to determine next steps or visit an assessment center to get tested.
- 12 Staff who screen or test positive for COVID-19 must follow the [most current self-isolation and return to work guidance from the Ministry of Health](#) prior to returning to work.



Office Setup

- 13 Dentists should ensure that points of entry into the office are limited (e.g., by designating a single entrance door).
- 14 Dentists must ensure that the office and operatories are clean and disinfected.
- 15 Dentists must shock their dental unit water lines if returning from an extended break in practice (contact the product manufacturer for product recommendations).
- 16 Dentists must ensure magazines, toys, and any other non-essential items are removed from office, reception area, and operatories.
- 17 Dentists must [post signage](#) in common areas (e.g., at the main entrance and in the waiting area) communicating relevant expectations for patients ([see the Ministry of Health's COVID-19 Operational Requirements: Health Sector Restart document](#)). Signage must include any requirements for:
 - a. office capacity;
 - b. hand hygiene (e.g., a requirement to wash and/or sanitize hands upon entry to the practice);
 - c. respiratory hygiene (e.g., a requirement to wear a mask within the practice); and
 - d. physical distancing (e.g., a requirement to maintain a minimum distance of 2 metres, except as required for the provision of care).
- 18 Dentists must [post signage](#) at the entrance to the office and at reception describing the signs and symptoms of COVID-19, along with instructions for patients who screen positive for COVID-19.
- 19 Dentists must develop and post a [COVID-19 Workplace Safety Plan](#).
- 20 Dentists must ensure the availability of 70-90% ABHR at all entry points to the office as well as the reception area for use by staff.
- 21 Dentists must ensure that patients and staff have access to tissues and receptacles lined with garbage bags.
- 22 Dentists are advised to consider installing physical barriers at key contact points to reduce the spread of droplets, including reception (e.g., a plexiglass shield).

2. PATIENT INTAKE



Scheduling Appointments

- 23 In order to schedule in-person appointments for assessment and/or treatment, dentists must ensure that they can meet the PPE and operatory requirements outlined in this document.
 - a. Since each office is arranged and functions differently, the College relies on the professional judgment of dentists and their staff to adjust their practice for the enhanced protection of themselves and others.
- 24 If a dentist is unable to meet the applicable PPE and operatory requirements, and the patient requires in-person treatment, the appointment must be deferred until the PPE and/or operatory requirements can be met, or the patient must be referred to another available practitioner.
- 25 Dentists must ensure that appointments are scheduled and managed to support requirements for physical distancing, and to avoid or limit direct, face-to-face interaction with others, including staff and other patients (for example, by staggering appointment times).
- 26 Dentists must ensure that patients are triaged and appointments are scheduled by phone or via teledentistry (not in person or via walk-in except as may be necessary in an emergency).
- 27 Prior to scheduling an appointment, dentists must ensure that patients are screened for COVID-19 using the COVID-19 [screening questions developed by the Ontario Ministry of Health](#).
- 28 Dentists must record the results of the patient's screening in the patient's record (a written notation summarizing the conversation and screening results is sufficient for record keeping purposes).



Patient Arrival Protocol

- 29 Prior to permitting entry to the office, patients (and anyone else entering the office) must be screened a second time for COVID-19 using the [screening questions developed by the Ontario Ministry of Health](#).

- 30** Dentists must require patients and visitors to wear their own mask at all times while in the office (e.g., a procedural/surgical mask, cloth covering, or other appropriate face covering). For more information on the requirement to wear masks, including limited exceptions, see the [COVID-19 FAQ](#).
- a. Patients who arrive without a mask must be provided one by staff prior to entering the office or be required to schedule a new appointment.
- 31** Dentists must ensure that patients do not remove their mask, except as required for treatment, and do not leave their mask in waiting areas or anywhere else inside the office. Patients must be advised to secure their mask when not in use.
- 32** Dentists should require individuals accompanying a patient to wait outside the practice unless absolutely required (e.g., a parent accompanying a young child or a patient who requires accommodation).
- 33** Dentists must require patients (and guests) to perform hand hygiene with either 70-90% ABHR or soap and running water upon initial entry to the office.
- 34** Dentists should minimize patient contact with all surfaces.
- 35** Except as needed when providing care, a physical distance of at least 2 metres should be enforced between all people in the office.



Additional Requirements for Patients who have Screened or Tested Positive for COVID-19

In addition to the guidance contained in the section [Patient Arrival Protocol](#), dentists must also adhere to the following guidance for patients who have screened or tested positive for COVID-19.

- 36** Patients who have screened or tested positive for COVID-19 must not be treated in-person except as needed for emergency or urgent care that cannot be delayed.
- 37** Patients who screen positive for COVID-19 should be advised to self-isolate and contact their primary care provider or Telehealth Ontario at 1-866-797-0000 to determine next steps or visit an assessment center to get tested.

- 38** COVID-19 is a designated disease of public health significance, which means that dentists are subject to reporting requirements under the Health Protection and Promotion Act. Public Health Ontario has advised that dentists must report “probable” and “confirmed” cases of COVID-19 to the public health unit in which the professional services were provided (see the following [link](#) for more information). Public Health Ontario has further advised that dentists are not required to report every patient who screens positive for COVID-19 when scheduling or attending a dental appointment.
- 39** Where the in-person care of a patient who has screened or tested positive for COVID-19 cannot be avoided, the patient should be scheduled at the end of the day to decrease the risk to other patients.
- 40** Patients who have screened or tested positive for COVID-19 must don a surgical / procedure mask prior to entering the office (for more information on the requirement to wear masks, including any limited exceptions, see the [COVID-19 FAQ](#)).
- a. Where the patient does not have their own surgical / procedure mask, they must be given one by staff.
- 41** Patients who have screened or tested positive for COVID-19 must immediately be placed into an operatory alone with the door closed.
- a. Patients who have screened or tested positive for COVID-19 must not be placed within 2 metres of any other patients in the office (e.g., in the waiting room).
- b. Where an operatory is not available and/or physical distancing cannot be maintained, patients who have screened or tested positive for COVID-19 must be instructed to return outside (e.g., to their vehicle or a parking lot if available and appropriate), and informed they will be notified when a room becomes available.

3. PROVIDING IN-PERSON CARE



Use of PPE During Non-Aerosol Generating Procedures

- 42** In response to the provincial shutdown and state of emergency, dentists must provide in-person care using enhanced precautions. When performing non-aerosol generating procedures, dentists must ensure that care is provided using the enhanced PPE precautions set out in Table 1 for all patients, including:

- a) ASTM level 2 or 3 procedure/surgical mask,
- b) gloves,
- c) eye protection OR face shield, and
- d) protective gowns.

Table 1

SETTING	PROCEDURE/ACTIVITY	TYPE OF PPE	CHANGE FROM PREVIOUS GUIDANCE
Operatory or other treatment area	Non-aerosol generating procedures (NAGPs) for all patients	<ul style="list-style-type: none"> • ASTM level 2 or 3 procedure/surgical mask • Gloves • Eye protection OR face shield • Protective gown 	• Required use of protective gown for all patients.
	Aerosol generating procedures (AGPs) for all patients	<ul style="list-style-type: none"> • N95 respirator (fit-tested, seal-checked), or the equivalent, as approved by Health Canada • Gloves • Eye protection AND face shield • Protective gown 	• None.
	Cleaning and disinfection of operatory or other treatment area	<ul style="list-style-type: none"> • ASTM level 1 procedure mask • Gloves • Eye protection 	• None.
Reprocessing area	Reprocessing of reusable instruments	<ul style="list-style-type: none"> • ASTM level 2 or 3 procedure/surgical mask • Heavy duty utility-gloves • Eye protection or face shield • Protective gown 	• None.
Reception area	Reception duties and screening	<ul style="list-style-type: none"> • ASTM level 1 procedure mask OR physical barrier • Maintain physical distancing 	• None.
Common and staff areas	Administrative and other tasks	<ul style="list-style-type: none"> • ASTM level 1 procedure mask OR maintain physical distancing 	• None.

- 43 Dentists must ensure that clinical staff are trained in and use proper donning and doffing procedures for PPE (e.g., review Public Health Ontario’s [Recommended Steps for Putting on and Taking Off Personal Protective Equipment](#)).



Intra-Oral Radiographs

- 44 When possible, dentists should minimize the use of intra-oral radiographs and consider using extra-oral radiographs.

4. AEROSOL-GENERATING PROCEDURES

When a patient undergoes an aerosol-generating procedure (AGP), high concentrations of droplets smaller than 5 µm (droplet nuclei) are generated that may remain suspended in the air for significant periods of time, move with air currents, and come in contact with others. This creates a risk for opportunistic airborne transmission of COVID-19, even if the virus is not otherwise able to spread by the airborne route. While there is no conclusive evidence at this time that opportunistic airborne transmission of COVID-19 occurs after AGPs, the College has adopted a precautionary approach that prioritizes safety.

- 45 Dentists must avoid AGPs whenever possible and use the lowest aerosol-generating options when necessary.
- Aerosols may be generated by high-speed, low-speed and other rotary handpieces, ultrasonic and other similar devices, and air-water syringes.



Preparing the Operatory for Aerosol-Generating Procedures

- 46 Dentists must minimize the contents of all operatories in which AGPs may be performed, including unnecessary equipment, supplies, plants, and artwork.
- 47 AGPs must be performed in an operatory that is capable of containing aerosol. This requires floor-to-ceiling walls and a door (or other barrier) that must remain closed during and after such procedures. Temporary walls and doors are permitted, provided they create an area to contain aerosols and are constructed of materials that can withstand repeated cleaning and disinfection.



Use of PPE During Aerosol-Generating Procedures

- 48** When performing AGPs, dentists must ensure that care is provided using the enhanced PPE precautions set out in Table 1 for all patients, including:
- fit-tested and seal-checked N95 respirators (or the equivalent, as approved by Health Canada),
 - gloves,
 - eye protection and face shields, and
 - protective gowns.
- 49** Dentists must ensure that clinical staff are trained in and use proper donning and doffing procedures for PPE (dentists are advised to review Public Health Ontario's [Recommended Steps for Putting on and Taking Off Personal Protective Equipment](#)).



Using an Oral Rinse

- 50** While there is a lack of direct evidence that pre-procedural rinses prevent infections in dental care providers, they have been shown to reduce the level of oral microorganisms in aerosols and spatter from rotary handpieces (see Public Health Ontario's [COVID-19 in Dental Care Settings](#)). Given their potential for benefit and the absence of serious risks, dentists should require patients to rinse with an appropriate oral rinse for 60 seconds prior to examination of the oral cavity (for example, 1% povidone iodine).



Mitigating High Risk Aerosols

- 51** If possible, dentists should use a rubber dam with high-volume suction to minimize aerosols and possible exposure to infectious agents.



Clearing the Air of Aerosol (Fallow Time) Following Aerosol-Generating Procedures

52

Following an AGP, dentists must:

- a. Ensure that the operatory is left empty (with the door closed) to permit the clearance and/or settling of aerosols.
- b. Ensure that the operatory remains empty for a length of time that achieves 99.9% removal of airborne contaminants (dentists must use Table 2 to calculate the length of time necessary to achieve 99.9% removal of airborne contaminants based on air changes per hour [ACH]).
- c. If dentists have not had the rate of air changes for their office confirmed by an HVAC professional, dentists must assume a rate of 2 air changes per hour and adhere to a minimum fallow time of 3 hours.

Table 2: Time Required for Removal or Settling of Aerosols by Air Changes per Hour (ACH)

AIR CHANGES PER HOUR (ACH)	TIME REQUIRED FOR REMOVAL OR SETTLING OF AEROSOLS IN MINUTES (99.9% EFFICIENCY)
2	207
4	104
6	69
8	52
10	41
12	35
15	28
20	21
25	17
30	14
35	12
40	11
45	10
50	8

Adapted from: Centers for Disease Control and Prevent, Guidelines for Environmental Infection Control in Health-Care Facilities (2003): Table B.1. Air changes/hour (ACH) and time required for airborne-contaminant removal by efficiency. Available at: <https://www.cdc.gov/infectioncontrol/guidelines/environmental/appendix/air.html#tableb1>

53

Dentists should consult an HVAC professional to assess the existing HVAC system and calculate the actual ACH for the dental practice. Dentists may use the actual ACH to calculate a fallow time using Table 2.

- a. Dentists should retain copies of any documentation supporting the HVAC assessment and any need for engineering controls.

Options to improve ACH (and further reduce the fallow time) may be explored, including:

- a. Consulting an HVAC professional to determine whether changes to the existing HVAC system are possible to improve ACH for the dental practice.
- b. If changes to the existing HVAC system are not possible or adequate, dentists may consider the use of an in-operatory air cleaner (e.g. HEPA filtration) to increase the effective air changes per hour (eACH) for a specific operatory.
- c. If an in-operatory air cleaner (e.g. HEPA filtration) will be used to increase the effective air changes per hour (eACH) for a specific operatory, the HVAC professional must also take into account several additional factors, including:
 - i. any structural changes that may be necessary to contain the spread of aerosols (e.g., the addition of floor to ceiling walls or barriers),
 - ii. the type of unit being considered (e.g. fixed versus portable),
 - iii. the cubic feet of the operatory and airflow rate of the unit, and
 - iv. the optimal placement and operation of the unit.

5. PATIENT DEPARTURE AND OFFICE SANITIZATION



Patient Departure Protocol

54

Patients should be asked to disinfect their hands with 70-90% ABHR before leaving the dental practice.

55

Patients should be asked to inform office staff if they experience any symptoms of COVID-19 within 14 days of their appointment.



Office Sanitization

- 56 Dentists must ensure that operatories are cleaned and disinfected between each patient appointment.
- 57 Dentists must ensure that general office housekeeping, including cleaning and disinfection of high-touch surfaces, occurs at least twice per day, including at the end of the day following the departure of the last patient (high-touch surfaces include, as examples, door knobs, plexiglass barriers, hand rails, counters, and the arms of chairs).

6. COVID-19 EXPOSURE IN THE PRACTICE

- 58 Dentists must ensure that they have a designated space for staff and/or patients to self-isolate should they begin experiencing symptoms of COVID-19 or suspect possible exposure to COVID-19.
- 59 In the event of suspected exposure to COVID-19, staff must immediately self-isolate and contact their primary care provider or Telehealth Ontario at 1-866-797-0000 to determine next steps or visit an assessment center to get tested. Staff are also advised to contact their local public health unit to self-report.
- 60 In the event that a patient contacts the office to report symptoms of COVID-19 within 14 days of having attended an appointment, dentists must contact their [local public health unit](#) for further guidance.