

COVID 19: GUIDANCE FOR REGISTERED DENTAL TECHNOLOGISTS

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College of Dental Technologists of Ontario
Ordre des Technologues Dentaires de l'Ontario

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INTRODUCTION

This document will guide Registered Dental Technologists (RDTs) in making the appropriate decisions that will minimize the risk of exposure to and transmission of COVID-19. It should be considered in conjunction with the College's Standards of Practice and Practice Advisories. The College will continue to update this document as the situation evolves and more is known about COVID-19 and its variants.

This guidance has been informed by the best available evidence which is anchored to key external resources such as those from Ontario's public health authorities (see RESOURCES).

System Partnership

We have engaged with multiple stakeholders including other regulatory health bodies, the Association of Dental Technologists of Ontario, various government agencies, dental technologists, infectious disease and IPAC experts, and the Canadian Alliance of Dental Technology Regulators to respond to the COVID-19 pandemic.

Ontario's Oral Health Regulators Collaboration

Ontario's oral health regulatory Colleges are committed to working together to provide consistent guidance for the safe and effective provision of oral healthcare during the COVID-19 pandemic.

This ongoing collaboration involves the College of Dental Technologists of Ontario (CDTO), the College of Dental Hygienists of Ontario (CDHO), the Royal College of Dental Surgeons of Ontario (RCDSO), and the College of Denturists of Ontario (CDO). This means that oral healthcare providers can be assured that their regulatory Colleges have reviewed and agreed upon consistent expectations for overlapping areas of practice (e.g., use of PPE), and that these expectations are reflected consistently in each College's updated guidance materials.

Principles

The following principles will underpin our COVID-19 guidance:

1. The health and safety of patients/clients, the public and practitioners is our top priority.
2. Guidance will be based on best available evidence and data. In the absence of clear evidence, prioritize caution and safety.
3. Continuity of care must be preserved. Patients/clients of record should have reliable access to their oral healthcare providers to ensure they get the guidance and support they need.
4. Patient/client for access to oral healthcare must be balanced with the risks of spreading COVID-19.
5. Technology should be used to assess risks and triage patient/client needs remotely.
6. Communication with patients/clients is critical. Risks or changes to care related to COVID-19 must be highlighted.

INFECTION PREVENTION AND CONTROL STANDARD

This document highlights additional considerations necessary to mitigate the risk of COVID-19. It builds upon the foundation of the College's [Infection Prevention and Control Standard](#). Refer to this standard for specific guidance in areas such as routine practices and procedures for reprocessing instruments.

WORKPLACE CONSIDERATIONS

The College recognizes that RDTs practice in a variety of settings (e.g., dental laboratories, dental offices) and may not always be in a decision-making role. RDTs are advised to familiarize themselves with the expectations of their employers and workplace policies to help mitigate the spread of COVID-19.

Communication

Changes to protocols and workplace expectations for patients should be communicated to staff, clients, patients and visitors. Some examples of signage include:

- Government of Ontario's [COVID-19 Symptoms for Patients and Visitors](#)
- Public Health Ontario's [Cover Your Cough](#)

Staff Screening

Despite the removal of the requirement, RDTs and staff are still encouraged to self-monitor for COVID-19 symptoms using the [COVID-19 self-assessment tool](#).

- RDTs and/or staff with suspected or confirmed COVID-19 are reminded to :
 - Self-isolate and contact their primary care provider or Telehealth Ontario at 1-866-797-0000 to determine the next steps. See [Management of Cases and Contacts of COVID-19 in Ontario](#).

Physical Distancing

- Maintain a distance of two (2) meters from others whenever possible.
- If physical distancing cannot be maintained or if a proper physical barrier (e.g., plexiglass) is not in place, an appropriate mask and eye protection (e.g., goggles or face shields) must be worn.

Hand Hygiene

- Hand hygiene should be performed according to [Public Health Ontario's Guidelines](#) and posted in applicable areas.

Ventilation

- Ventilation is a common control for preventing exposure to toxic material. Well-designed and well-maintained ventilation systems can remove toxic vapors, fumes, mists or other airborne contaminants from the workplace preventing staff exposure. Effective ventilation can reduce airborne hazards.

Environmental Cleaning

Routine practices, which include cleaning and disinfection of surfaces, are important to control the potential spread of COVID-19.

- All common areas should be regularly cleaned. In addition, physical barriers (e.g., plexiglass) are to be included in routine cleaning (e.g., daily).
- Any [frequently touched surfaces](#) (e.g., doorknobs, elevator buttons, light switches, toilet handles, counters, hand rails, touch screen surfaces) should be cleaned and disinfected on a regularly scheduled basis and when visibly dirty.
- Use disinfectants that have a Drug Identification Number (DIN).

PRACTICE CONSIDERATIONS

Personal Risk assessment

A [Point of Care Risk Assessment](#) (PCRA) is the first step in routine practices. This must be performed prior to each interaction with the patient in order to determine the interventions that are required to prevent the transmission of infection including requirements for personal protective equipment (PPE).

- Masking is no longer mandatory for patients and visitors except:
 - unless indicated by the PCRA
 - as noted in Table 1
 - unless indicated by the organization's health policy

Personal Protective Equipment

Personal protective equipment (PPE) is critical to the health and safety of all healthcare workers, as well as the patients cared for. Professional judgement and PCRA should be used to determine the appropriate PPE for the activity being performed. The minimum required PPEs (based on setting and procedure) are outlined in Table 1.

- RDTs and staff must continue to don masks and all other necessary PPE (as set out in Table 1) or higher level PPEs as determined by the personal risk assessment.
 - PPE is only effective when it is in good condition and put on (donned) and removed (doffed) correctly. See [Public Health Ontario's guidelines](#).
 - N95 respirators should be fit-tested and seal-checked.
 - Medical masks (procedure or surgical) can function as source control (being worn to protect others) or as PPE (to protect the wearer). See [Public Health Ontario's Universal Use of Mask](#).
 - Eye protection (e.g., goggles or face shields) can protect the eyes from splashes, sprays and droplets.
 - Isolation gowns are required if skin or clothing will come in contact with the patient. Gowns must be changed after each patient use. Also, as part of routine practices and a PCRA, a gown is worn when it is anticipated that a procedure or care activity is likely to generate splashes or sprays of saliva, blood, body fluids, secretions, or excretions. See [Health Canada personal protective equipment against COVID-19: Medical gowns](#) and [Medical Isolation Gowns for COVID-19 in Health Care Settings](#).

Handling Packages and Items

- Dispose of all single-use shipping materials (e.g., plastic bags) that have contacted the received items. If the items are reusable, properly disinfect (whenever possible sterilize) them according to manufacturer's instructions.
- Communicate effectively with dental practices to know whether a received item belongs to a patient with suspected or confirmed COVID-19.
- Increased caution and appropriate PPE (see Table 1) should be used when handling items that have had contact with a patient with suspected or confirmed COVID-19. These items must be thoroughly disinfected or sterilized, as appropriate before proceeding.
- Clean and disinfect the area for receiving incoming cases immediately after decontamination of each case.
- Clean and properly disinfect (whenever possible sterilize) items before sending them out. Package and label to indicate "disinfected".

Table 1. Use of Personal Protective Equipment (PPE) by Setting and Procedure for COVID-19.

RDTs and Staff		
Setting	Procedure	Minimum Required PPE
Patient care area or dedicated area for aerosol-generating procedures	Aerosol-generating procedures on a dental prosthesis or device that has had contact with a patient with suspected or confirmed COVID-19 in a dental laboratory	<ul style="list-style-type: none"> • Fit-tested and seal-checked N95 respirator (or equivalent as approved by Health Canada) • Gloves • Eye protection • Isolation gown
	Aerosol-generating procedures on a dental prosthesis or device that has had contact with a patient who has screened negative for COVID-19 in a dental laboratory	<ul style="list-style-type: none"> • Fit-tested and seal-checked N95 respirator, (or equivalent as approved by Health Canada) or ASTM* level 2 or 3 procedure/surgical mask • Gloves • Eye protection • Isolation gown (optional)
	In-person care (non-aerosol-generating procedures) for patients with suspected or confirmed COVID-19	<ul style="list-style-type: none"> • Fit-tested and seal-checked N95 respirator (or equivalent as approved by Health Canada) • Gloves • Eye protection • Isolation gown
	In-person care (non-aerosol-generating procedures) when the patient has screened negative for COVID-19	<ul style="list-style-type: none"> • ASTM level 2 or 3 procedure/surgical mask • Gloves • Eye protection • Isolation gown (optional)
	Cleaning and disinfection of patient care area or dedicated area for aerosol-generating procedures	<ul style="list-style-type: none"> • ASTM level 1 procedure mask • Gloves • Eye protection
Receiving items area	Disinfection of received contaminated (or potentially contaminated) items for patients with suspected or confirmed COVID-19	<ul style="list-style-type: none"> • ASTM level 2 or 3 procedure/surgical mask and for disinfection activities that generate aerosols: N95 (or equivalent as approved by Health Canada) • Gloves • Eye protection • Isolation gown
	Disinfection of received contaminated (or potentially contaminated) items when the patient has screened negative for COVID-19	<ul style="list-style-type: none"> • ASTM level 2 or 3 procedure/surgical mask • Gloves • Eye protection • Isolation gown (optional)
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 • Isolation gown
Fabrication area	Fabrication process – for non-aerosol-generating procedures	<ul style="list-style-type: none"> • ASTM level 1 procedure mask or maintain physical distancing • Protective clothing (e.g., lab coat, isolation gown) • Additional PPE as required by the activity being performed (e.g., gloves, eye protection)
Reception area	Reception duty and screening	<ul style="list-style-type: none"> • Minimum ASTM level 1 procedure mask • Physical barrier recommended
Common and administration area	Administrative and other tasks	<ul style="list-style-type: none"> • ASTM level 1 procedure mask or maintain physical distancing
Masking for Patients		
	Patients who are suspected or confirmed COVID-19	<ul style="list-style-type: none"> • ASTM level 1 procedure mask prior to entering the building or dental laboratory and kept until leaving the building

*ASTM is an international standards organization.

Aerosol-Generating Procedures

An aerosol-generating procedure is defined as an activity that creates either fine, solid, particulate matter or liquid droplets in the air. Aerosols may be generated when using high-speed, low-speed, and other rotary handpieces, ultrasonic, and other similar devices on dental prostheses, devices, or items (e.g., impressions) that have had direct patient contact (e.g., saliva). Examples include polishing or grinding of a patient’s denture for the purpose of adjustment or repair (e.g., orthodontic appliances, re-staining of crowns).

While there is currently inadequate scientific research to assess the risk of aerosol-generating procedures in dental laboratories, the College has adopted a precautionary approach that prioritizes safety.

Patients with suspected or confirmed COVID-19

If an aerosol will be generated on prostheses, devices, or items that belong to patients with suspected or confirmed COVID-19, the following precautionary measures must be met in dental laboratories:

- A closed dedicated space, such as a containment box or a room with floor-to-ceiling walls with a closed door, to prevent the spread of aerosols to other parts of the workplace.
- The use of additional precautions as set out below, and enhanced PPE (see Table 1), such as a fit-tested and seal-checked N95 respirator or equivalent [as approved by Health Canada](#), gloves, eye protection, and isolation gown. Where aerosols are contained and there is no exposure (e.g., containment box), enhanced PPE is not required.
- Delay the cleaning and disinfecting of the dedicated space and ensure it remains empty for 138 minutes unless the rate of air change for the dedicated space is known and is higher than 2 Air Changes per Hour (ACH). The time it takes for a 99.0% dilution of any aerosols is assumed to be 138 minutes based on 2 ACH. For ventilated spaces (e.g., containment box with a suction unit), this time may be reduced and must be calculated based on ACH. Use Table 2 to determine the length of time necessary to achieve 99.0% removal of airborne contaminants. For example, an operating theatre in a hospital with 20 ACH may only require 14 minutes.
- Consult with an HVAC professional to assess the existing HVAC system and determine the actual ACH for the dedicated space. An HVAC professional may use the actual ACH to calculate the time required for 99.0% removal of any aerosols (see Table 2).
- Limit the number of people exposed to the aerosols during and after the procedure.

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

Air Change per Hour (ACH)¶	Time (mins.) required for removal 99.0% efficiency*
2	138
4	69
6	46
8	35
10	28
12	23
15	18
20	14
25	12
30	10
35	8
40	7
50	6

Adapted from: Centers for Disease Control and Prevention, 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>

PATIENT CARE

Professional judgement and personal risk assessment must be used to make the necessary adjustments to increase protection of patients, visitors, and staff. When these guidelines cannot be met, the patient must be referred to another practitioner.

Patients Screening

- All patients and visitors must be screened for COVID-19 using the [COVID-19 self-assessment tool](#) prior to entering the place of practice.
 - Visitors with suspected or confirmed COVID-19 must not be permitted to enter the place of practice until symptoms have resolved.

Patients with suspected or confirmed COVID-19

- Patients with suspected or confirmed COVID-19 must not be treated in person except, as needed for emergency or urgent care that cannot be delayed.
 - Patients should be advised to self-isolate and contact their primary care provider or Telehealth Ontario at 1-866-797-0000 to determine the next steps.
- When in-person care cannot be avoided, RDTs must adhere to the following additional requirements:
 - the patient's appointment must be scheduled at the end of the day (if possible) to decrease the risk to other patients,
 - the patient must don a mask prior to entering the building or dental laboratory (see Table 1), and
 - the patient must be placed immediately into a separate room alone with the door closed.

RESOURCES

[College of Dental Technologists of Ontario's Standards and Practice Advisories](#)

[Centers for Disease Control and Prevent \(CDC\) Guidance for Dental Settings](#)

[Ministry of Health COVID-19 Guidance for Health Sector](#)

- [Ministry of Health: COVID-19 Guidance: Personal Protective Equipment \(PPE\) for Health Care Workers and Health Care Entities](#)
- [Ministry of Health: Management of Cases and Contacts of COVID-19 in Ontario](#)

[Ontario Government COVID-19 Resources](#)

- [Ontario Government: COVID-19 Public Health Measure and Advice](#)

[Public Health Ontario's COVID-19 Resources](#)

- [Public Health Ontario Technical Brief: Interim IPAC Recommendations for Use of Personal Protective Equipment for Care of Individuals with Suspect or Confirmed COVID-19](#)

REVISION HISTORY

Revision #	Date Effective	Key Changes
1	May 22, 2020	<ul style="list-style-type: none"> Initial guidance document
2	June 3, 2020	<p>Updated to reflect CMOH's guidance in the COVID-19 Operational Requirements: Health Sector that the approach to care is based on patient screening for COVID-19</p> <ul style="list-style-type: none"> Additional guidance in the Patient Care section based on a patient screening or testing negative or positive for COVID-19 Addition of Table 1 in the section of Personal Protective Equipment, which sets out the use of PPE by setting and procedure based on a patient screening or testing negative or positive for COVID-19 Edit section on Aerosol-Generating Procedures, the guidance now applies only when it is on a dental prosthesis/device or an item that has had direct contact with patients who have screened or tested positive for COVID-19 Additional guidance in the Screening section to include the CMOH recommendation that staff conducting screening of patients and essential visitors are ideally behind a physical barrier
3	July 29, 2021	<p>Updated to reflect current evidence, the direction of public health authorities, and Ontario's Oral Health Regulatory Colleges ongoing collaboration including</p> <ul style="list-style-type: none"> Minor amendments to ensure overall consistency with the guidance of Ontario's other oral health regulators, including CDHO, CDO, and RCDSO Removed 'Return to Practice' from the title Reduced the percentage target for aerosol removal from 99.9% to 99.0% which shortens the delay time required following AGPs (see Table 2) More latitude to administer aerosol-generating procedures with proper precautions as outlined in this guidance "RDTs' duty to report a COVID-19 positive patient" section is omitted according to Health Protection and Promotion Act: Duty to report disease
4	June 30, 2022	<p>Updated to reflect current evidence, the Ministry of Health's COVID-19 Guidance, and ongoing collaboration with Ontario's Oral Health Regulatory Colleges (OHCs):</p> <ul style="list-style-type: none"> Additional guidance in the Personal Risk Assessment section to determine the risk of COVID-19 transmission by assessing all patients or visitors Minor amendments to ensure overall consistency with the health authorities and OHCs' guidelines including updated terminology such as suspected or confirmed COVID-19 and related precautions Additional PPE requirements related to patients with suspected or confirmed COVID-19 (see Table 1) Fallow times and enclosed spaces for AGPs remain unchanged as a result of the OHCs' expert panel consultation in May of 2022 Removed mandatory masking for patients and visitors with a description of exceptions Removed mandatory staff daily screening and its record-keeping requirement