

# Ready to Reopen

**A series of information and best practices to minimize infections when treating patients**

**Rev. April 27, 2020**

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[envistaco.com](http://envistaco.com) MKT-4730 Rev. 00 (04/20, GMT 69097)



# We **partner** with professionals to improve lives.

The Covid-19 pandemic has changed the way we live, work, and practice dentistry. We have a responsibility, right now, to help you prepare your practices and clinical staff for when patients return.

With this document we want to share our knowledge on the subject as well as a series of best practices and guidelines that are emerging.

We are here to help you be **ready to reopen**.

# Objective

Our objective is to share our learnings and some new guidelines emerging globally across our industry.

We hope this information and resources referred in this document can help you and your practice reopen and recover faster.

## **SECTION 1 COVID-19 INFORMATION**

- Important facts about Covid-19

## **SECTION 2 INFECTION PREVENTION 101**

- Principles of Infection Prevention
- The Clinical Workflow

## **SECTION 3 BEST PRACTICES**

- Emerging Protocols and Guidelines
- Learnings from China

## **SECTION 4 ENVISTA SOLUTIONS & RESOURCES**

- Infection Prevention Solutions
- Continuing Education / Learning

# COVID-19 Information



# COVID-19: Why is it different than Flu?

## Definitions:

- ✓ **COVID-19** is a respiratory **illness** that has lead to the recent pandemic.
- ✓ **SARS-CoV-2** is the **pathogen** which causes COVID-19.

## COVID-19 vs. Flu: Key Differences

	Flu	COVID-19	Reasons why COVID-19 is NOT a bad flu
Incubation Time	1-4 Days	1-14 Days Median = 4 Days	Hidden positive carriers are contagious BEFORE they develop symptoms
Reproduction Number	Lower, $R_0 < 2$	Higher, $R_0 \sim 2-4$	Higher reproduction number means it is much more infections than a seasonal flu
Vaccine	YES	NO	No existing Vaccine for COVID-19

# Diagnositics & Treatment of COVID-19

## DIAGNOSTIC COMPARISON

PCR is the benchmark method for the diagnostic of COVID-19.

### rRT-PCR

Type: Screening Test

Duration: Hours to 2 days<sup>1</sup>

Highlights:

- CDC recommended<sup>4</sup>
- Longer testing time

### Chest CT Scan

Screening Test for pneumonia

Duration: Less than a hour<sup>2</sup>

Highlights:

- Not as accurate as rRT-PCR
- Should not be used as a screening test to diagnose COVID-19<sup>5</sup>

### Serology Test

Confirmation Test

Duration: 15 minutes<sup>3</sup>

Highlights:

- More convenient
- Can only be used 7-14 days after the onset of the infection<sup>6</sup>

## TREATMENT

There are no specific antiviral medications approved for COVID-19.

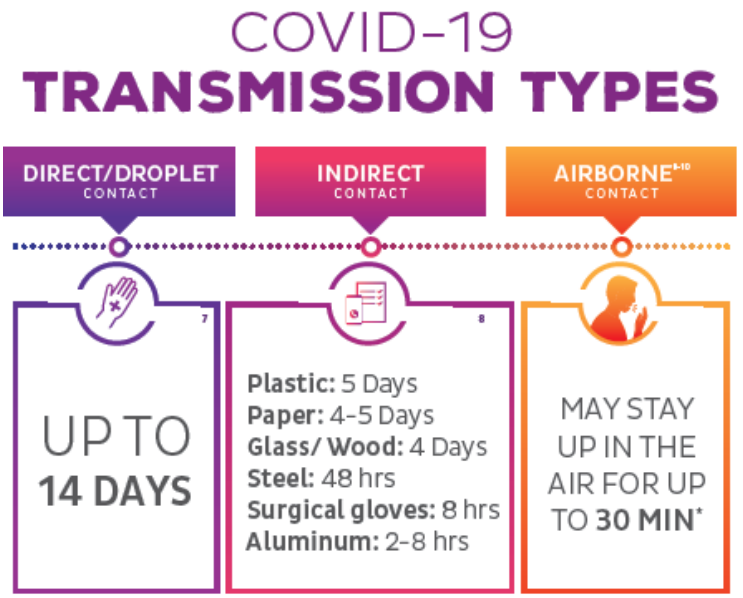
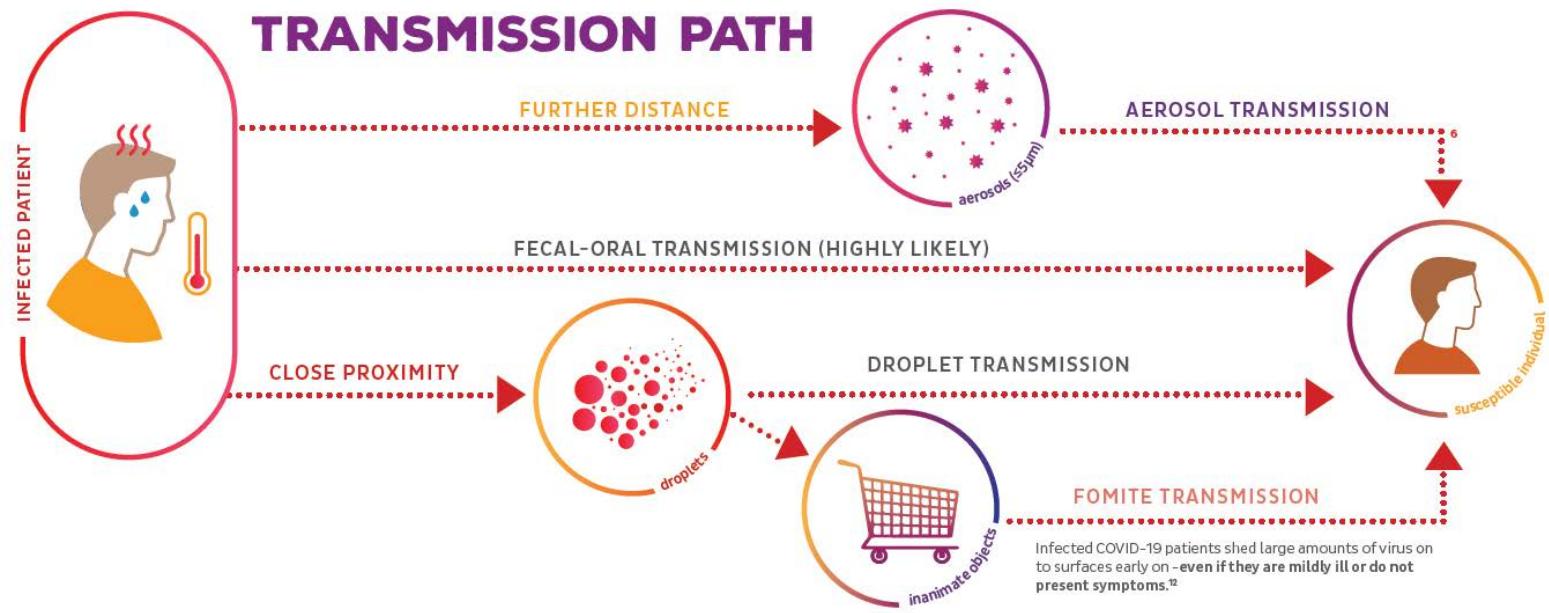
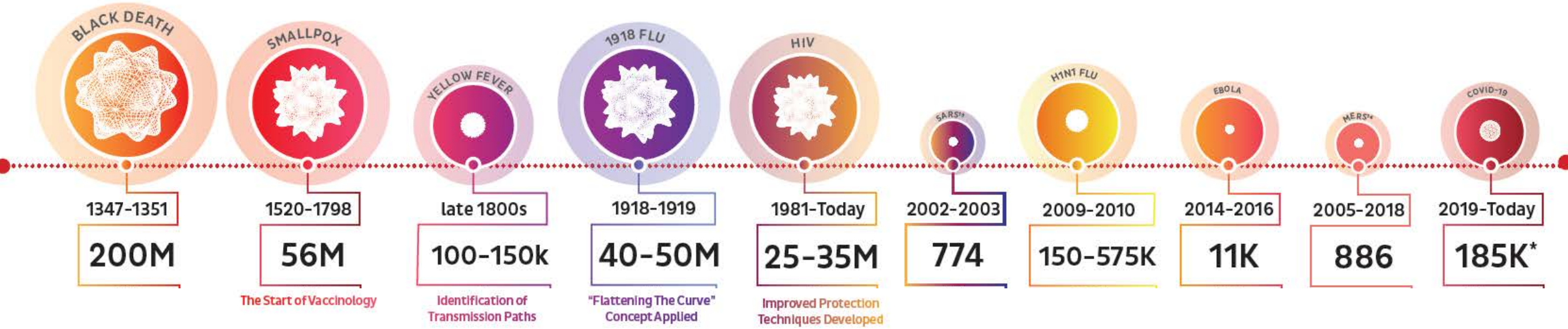
### MILD SYMPTOMS

- COLD MEDICATION
- DRINKING FLUIDS
- RESTING

### SEVERE SYMPTOMS

- OXYGEN TREATMENT
- IV FLUID
- BREATHING SUPPORT

# In This Together, United as Mankind



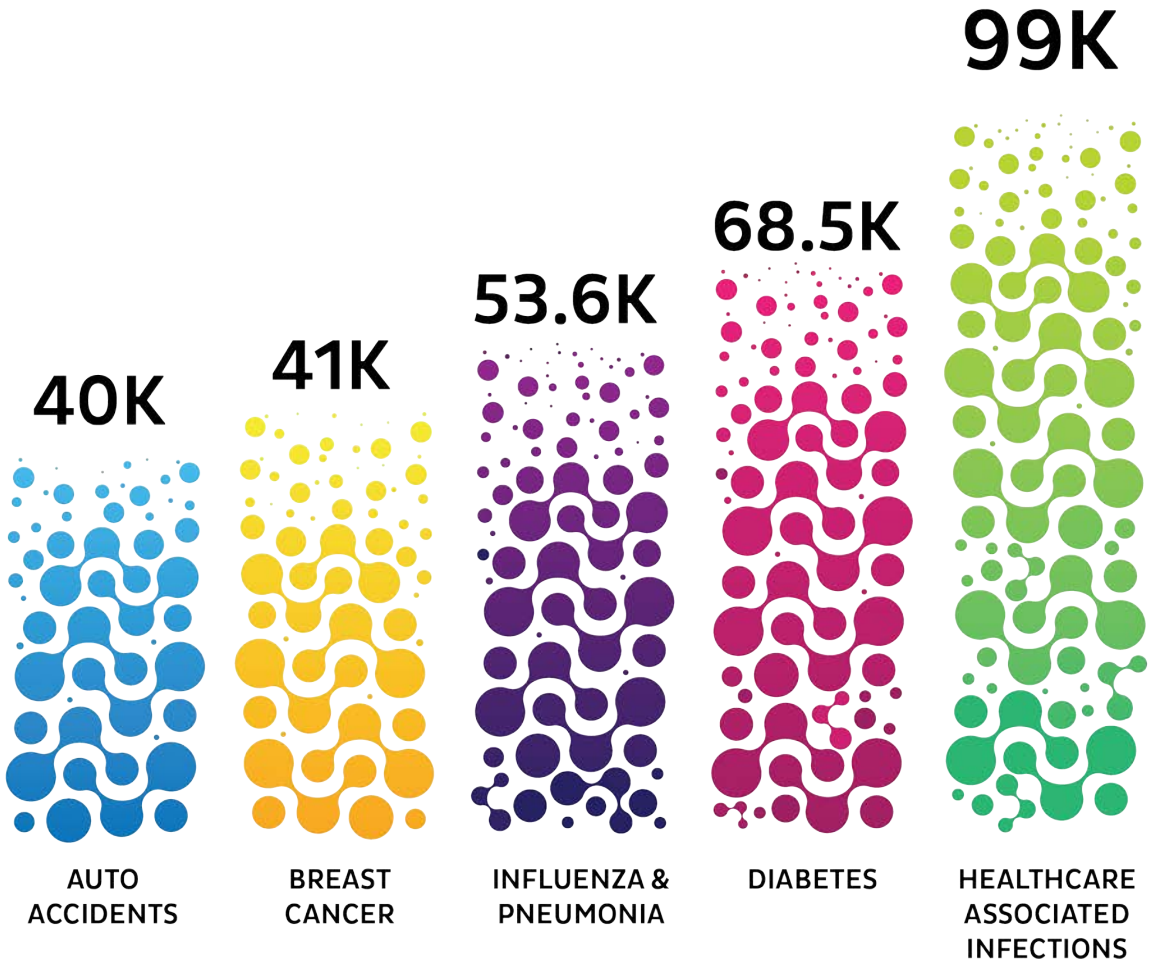


# Infection Prevention 101



# Fact #1

## Healthcare Associated Infections is the 4<sup>th</sup> leading cause of death in the US\*



\*Source: CDC, WHO

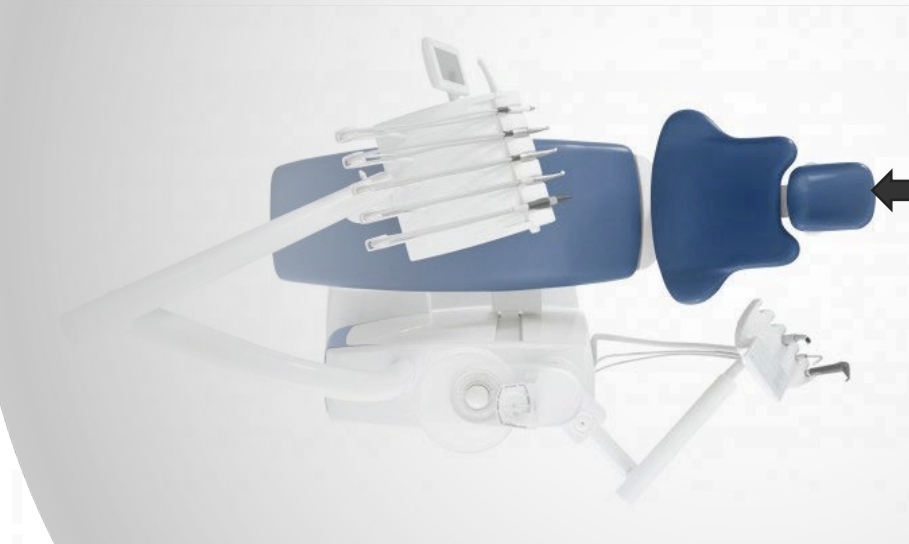
# Fact #2

## Saliva & blood can travel about 7~8 feet and spread the pathogens\*

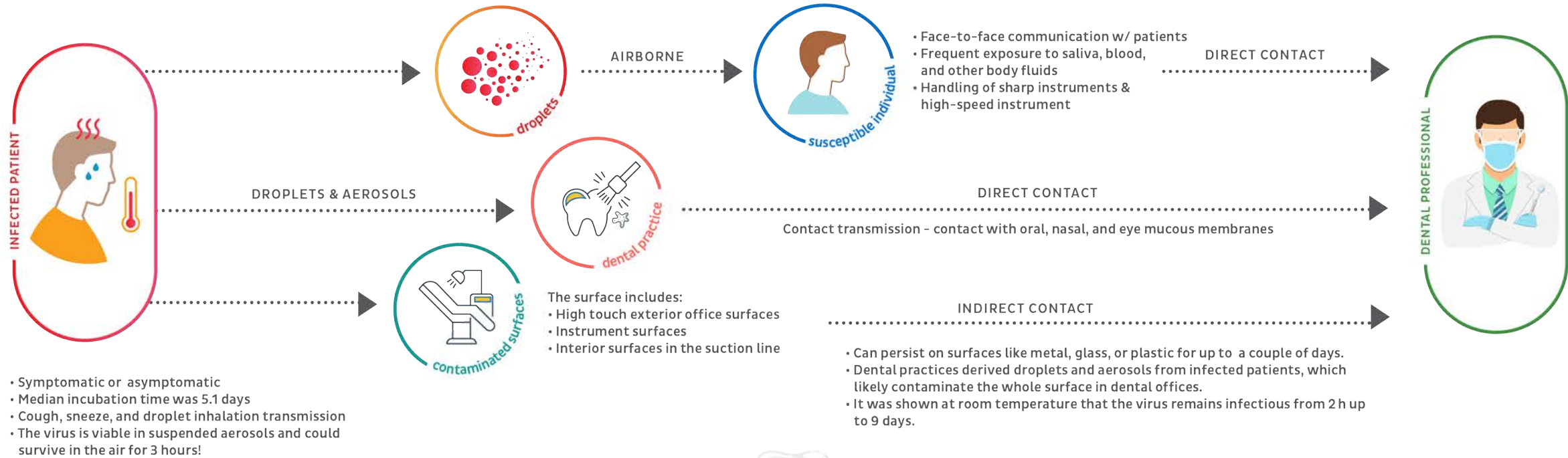
1 in 5 patients you see today have...

- Viruses (Flu, Herpes, HIV)
- Bacteria (Staph., Strep, MRSA)
- Fungi
- Parasites

\*CDC 2011

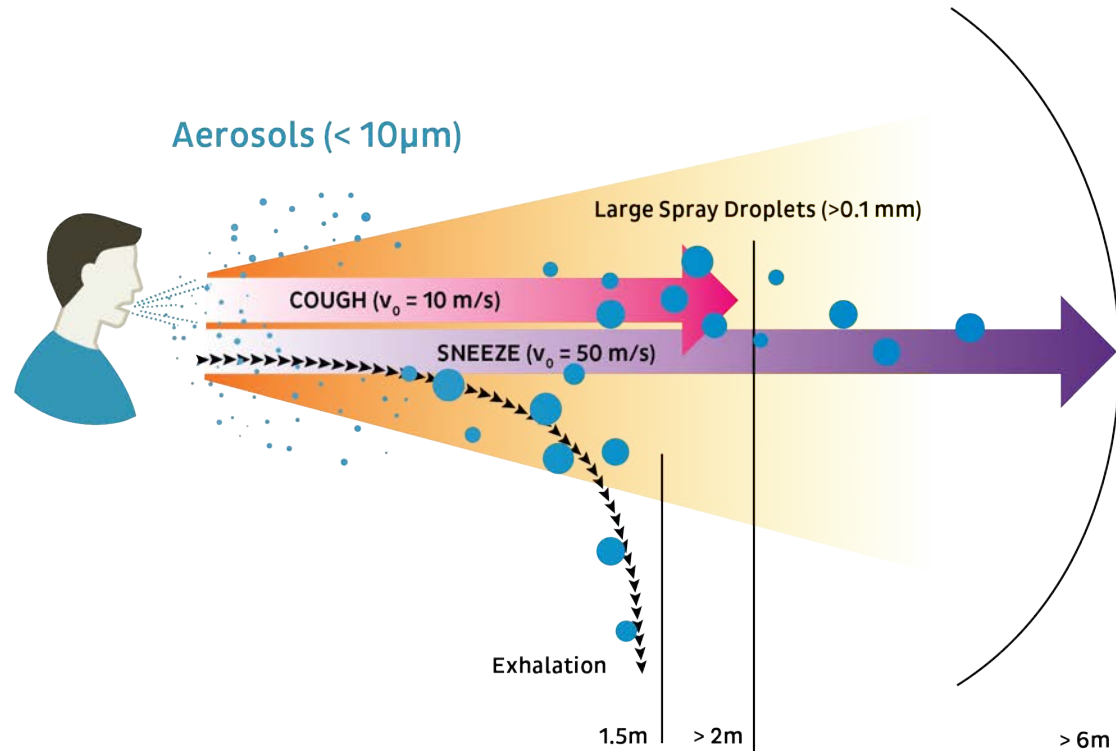


# Transmission routes of SARS-CoV-2 in dental practices



12 \* Peng, X., et al. Transmission routes of 2019-nCoV and controls in dental practice. *Int J Oral Sci* **12**, 9 (2020).  
 N van Doremalen et al. Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1N *Engl J Med* 2020;382:1564-1567.

# COVID-19 and the problem with dental aerosols



An April 2020 study\*, aerosols are suspensions of liquid and solid particles in the atmosphere, excluding clouds and precipitation.

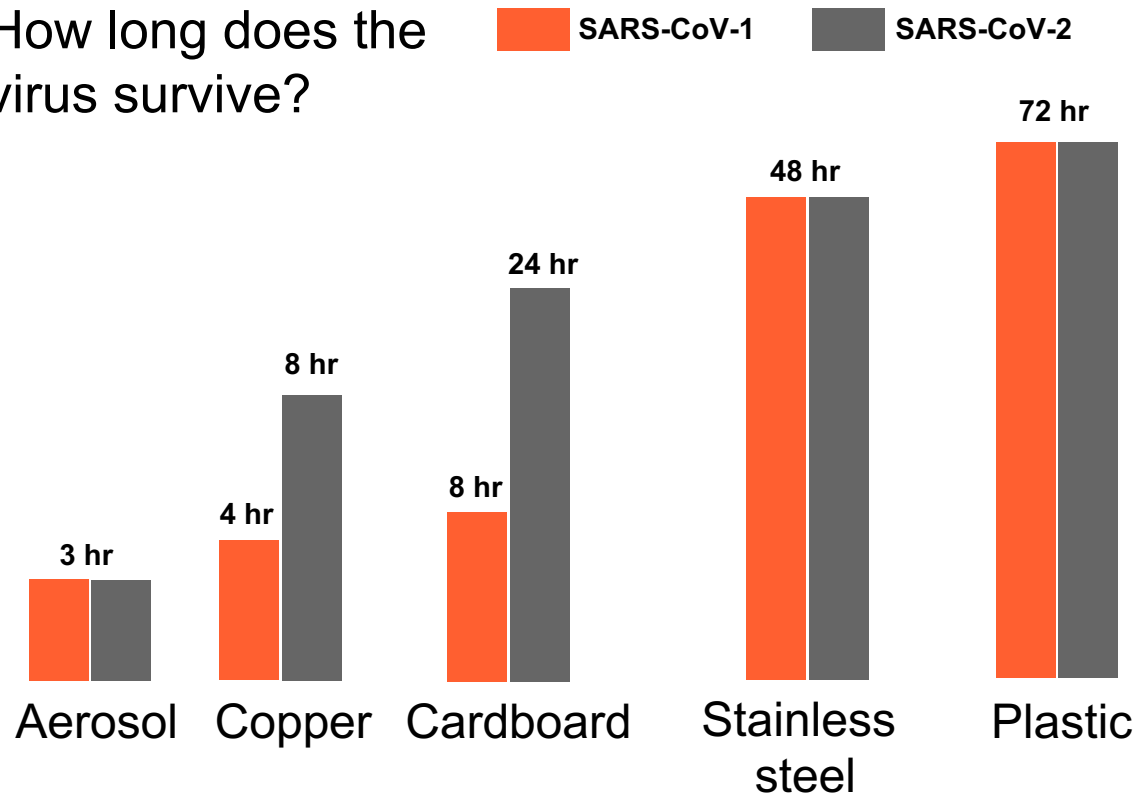
Particles are classified based on size:

- coarse particles: 2.5–10 microns
- fine particles: < 2.5 microns
- ultrafine particles < 0.1 micron.
- As a reference, SARS-CoV-2 is about 0.1 micron.
- The nose typically filters air particles above 10 microns. If a particle is less than 10 microns, it can enter the respiratory system.
- If it is less than 2.5 microns, it can enter the alveoli. A particle less than 0.1 micron, or an ultrafine particle like the COVID-19 virus, can enter the bloodstream and target organs such as the heart and brain.
- The current scientific consensus is that most transmission via respiratory secretions happens in the form of large respiratory droplets rather than small aerosols.

\*Scott F and Michelle S. COVID-19 and the problem with dental aerosols. Perio-Implant Advisory. April 2020.

# Viability of SARS-CoV-2 in Aerosols and on Various Surfaces

How long does the virus survive?



Another recent study\* found:

- SARS-CoV-2 remained viable in aerosols throughout the duration of our experiment (3 hours)
- SARS-CoV-2 was more stable on plastic and stainless steel than on copper and cardboard, and viable virus was detected up to 72 hours
- The results indicate that aerosol and fomite transmission of SARS-CoV-2 is plausible, since the virus can remain viable and infectious in aerosols for hours and on surfaces up to days. Further, these findings echo those with SARS-CoV-1, in which these forms of transmission were associated with nosocomial spread and **super-spreading events.**

# Social Distancing

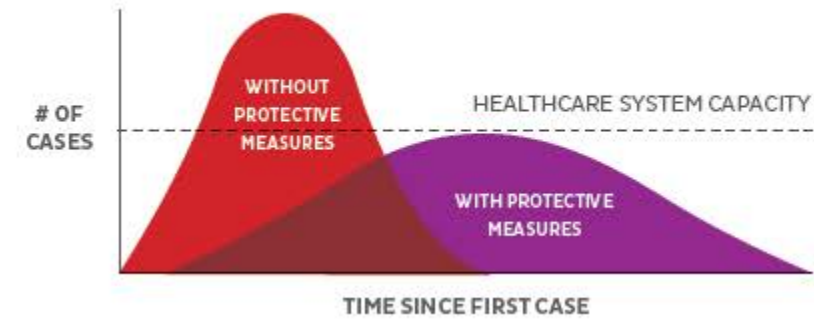
HOW LONG COULD I BE CONTAGIOUS?



Positive SAR-CoV-2 test results were found in patients recovered from COVID-19<sup>3</sup>

WHAT DOES FLATTENING THE CURVE MEAN?

By taking protective measures, reducing number of cases below healthcare system capacity will allow those infected a better chance of getting care.<sup>3</sup>



## WHAT IS SOCIAL DISTANCING?

### DO THIS

- Stay home except to get medical care
- Use video chat or mobile devices to communicate
- Separate yourself from other people in your home

### NOT THIS

- DON'T stand in crowded lines
- DON'T attend public events\*
- DON'T organize group activities

## WHY IS IT IMPORTANT?



Coronavirus is highly contagious, and spreads like a chain effect.<sup>4</sup>



Social distancing is not just for your protection, for all those around you, especially the elderly (parents + grandparents)



Your actions affect the whole community, and you should take protective measures to break the chain of infection.

## PRACTICE GOOD HYGIENE & DISINFECT

### HAND HYGIENE



Soap & Water

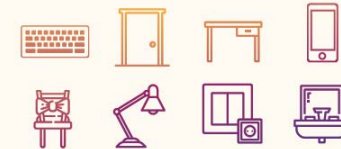
AT HOME/WORK



Hand Sanitizer

ON THE GO

### HIGH TOUCH SURFACES DISINFECTION



1. *The New England Journal of Medicine*, 2020, 382, 10

2. *Journal of American Medical Association*, 2020, February 27

3. Centers for Diseases Control and Prevention (CDC), Community Mitigation Guidelines to Prevent Pandemic Influenza, 2017, April 21. [https://www.cdc.gov/mmwr/volumes/66/rr/rr6601a1.htm#\\_blank](https://www.cdc.gov/mmwr/volumes/66/rr/rr6601a1.htm#_blank)

4. *The New England Journal of Medicine*, 2020, 382, 970

5. Reuters, False claim: Homemade hand sanitizer will protect against coronavirus, 2020, March 10. <https://www.reuters.com/article/uk-factcheck-coronavirus-sanitizer/false-claim-homemade-hand-sanitizer-will-protect-against-coronavirus-idUSKBN20X338>

6. Centers for Diseases Control and Prevention (CDC), Hand Hygiene in Healthcare Settings, 2019, April 29. <https://www.cdc.gov/handhygiene/index.html>

7. *The Journal of Hospital Infection Society*, 2020, 104, 246

# Sharing Best Practices





# Infection Prevention for Dental Practices

## Consider reviewing/adopting the following:

- **Patient evaluation**
  - Pre-screening prior to appointment / Teledentistry
  - On-site screening
- **Personal Protective Equipment (PPE)**
  - On April 16, 2020, ADA offers interim guidance to protect dentists, patients, and staff
    - *Interim Mask and Face Shield Guidelines*
    - Use the **highest level of PPE available** when treating patients to reduce the risk of exposure
    - *Professional judgment should be exercised when considering the use of gowns, foot covers and head covers*
- **Hand Hygiene**
- **Surface disinfection**
- **Protective covering**
- **Suction line cleaning and disinfection**

# Infection Prevention for Dental Practices

**Consider reviewing/adopting the following (...continued):**

- **Mouth rinse before dental procedures**
  - A preoperational antimicrobial mouth rinse is generally believed to reduce the number of oral microbes.
- **Rubber dam isolation**
- **Anti-retraction handpiece**
- **Management of medical waste**
  - The medical and domestic waste generated by the treatment of patients with suspected or confirmed COVID-19 are regarded as infectious medical waste.
  - The reusable instrument and items should be pretreated, cleaned, sterilized, and properly stored.

# Emerging Protocols and Guidelines

## CDC - Centers for Disease Control and Prevention

Interim Infection Prevention and Control Guidance for dental settings during the COVID-19 response

- Dental settings have unique characteristics that warrant additional infection control considerations.
- Postpone elective procedures, surgeries, and non-urgent dental visits.
- Proactively communicate to both staff and patients the need for them to stay at home if sick.
- Know steps to take if a patient with COVID-19 symptoms enters your facility.

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/dental-settings.html>

## ADA – American Dental Association

To aid dentists who may be reopening their practices when state mandates are lifted, the ADA has developed interim guidance on the PPE recommended in order to practice during this pandemic and minimize the risk of virus transmission. Additional guidance documents will be issued regarding protocols for office and treatment procedures.

<https://www.ada.org/en/press-room/news-releases/2020-archives/april/postponement-statement>

# Office Spaces / Maintaining Social Distancing

**Consider reviewing/adopting the following:**

- **No Handshaking Policy**
- **Reduce Capacity of Meeting Rooms**
  - Remove every other chair, clear signs indicating new max number of people allowed
- **Regular Disinfection of Touch Points**
  - Printers
  - Door handles (or adopt automatic doors)
  - Keyboard, mouse, desk surface etc.
  - Chairs' arm and back rest
- **Provide Disinfection at Different Points in the Office**
- **Wear Masks when Moving around the Office**
- **Rotation of Shifts / Days**
  - Break team in smaller groups to minimize contacts
  - Alternate work from home / office work days if possible

# Office Spaces: Emerging Guidelines

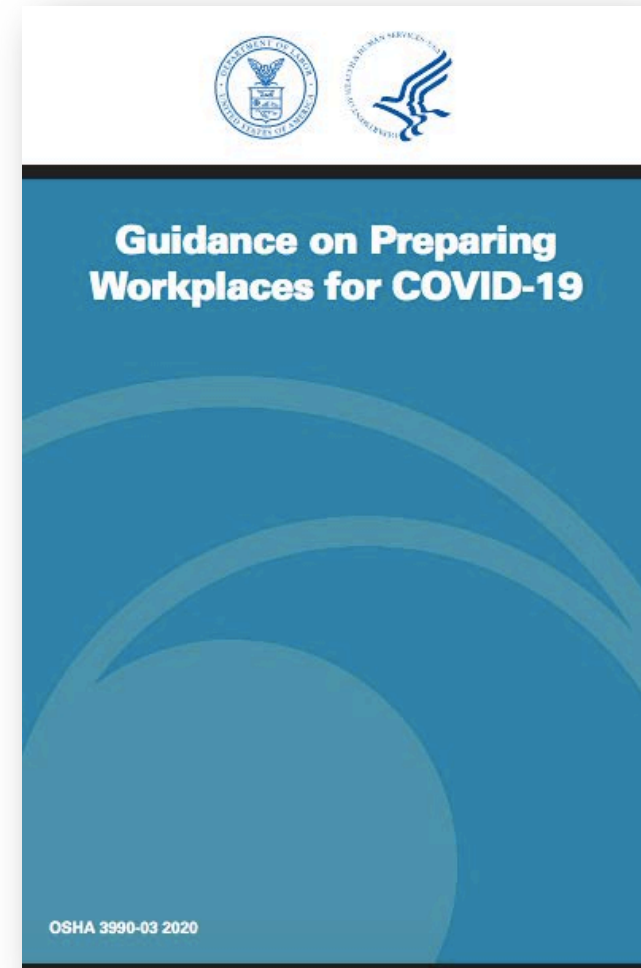
## OSHA - Guidance on Preparing Workplaces for COVID-19

This guide contains recommendations as well as descriptions of mandatory safety and health standards. The recommendations are advisory in nature, informational in content, and are intended to assist employers in providing a safe and healthful workplace.

This guide includes:

- How Covid-19 outbreak could affect workplaces
- Steps all employers can take to reduce workers' risk of Exposure to SARS-CoV-2
- Classifying worker exposure to SARS-CoV-2

<https://www.osha.gov/Publications/OSHA3990.pdf>



# Learnings from China

A selection of actions and processes taken by Chinese dental clinics in the reopening phases

## Practice Re-open

- Prepare protectives / PPE
- Compliance w/ new regulations
- Anti-COVID training to all staffs
- Adopt new protocol if needed
- Wear protections by risk level

- How we can help:
- Metrex disinfection package
  - Help setup new protocols
  - Training / support



## Patient Acquisition

- Patient education on safety
- Pre-screen via appointment
- Pre-plan treatment
- On-site screen and flow control
- Support existing patients online

- How we can help:
- “Safe Clinic” enabled partner
  - Online promotion / guidance
  - Communication/offers



## Treatment Plans

- Identify aerosol risks
- Enforce one patient / one room
- Encourage single-use items
- Sterilize re-usable devices
- Adopt suction system if needed

- How we can help:
- Nobel Triple Guarantee Offer
  - Risk-free insurance program
  - Support on tele-dentistry



## Professional Maintenance

- Regular waterlines cleaning
- Surfaces & air disinfection
- Close open areas (e.g. for kids)
- Monitor daily waste treatment
- Track all patients and records

- How we can help:
- Provide disinfection trainings
  - Auto-cleaning and/or waterline cleaning solutions (TU)



# Envista Solutions & Resources



# Metrex, a Leader in Infection Prevention Solutions

Metrex, one of Envista's business unit, is a leader in the manufacturing of infection prevention solutions.

Metrex has been protecting people across healthcare for over 30 years. Our products are used every day to help prevent infections in the healthcare community.

Metrex was the **first multi-national company to make donations to the Wuhan local CDC** by delivering CaviWipes right before Chinese New Year's Eve.

[https://mp.weixin.qq.com/s/vY\\_JT2sx710vrPtBpLSP0A](https://mp.weixin.qq.com/s/vY_JT2sx710vrPtBpLSP0A)

## 抗击病毒 我们在行动

数据截止2020年1月23日14:45, 我国境内累计确诊新型冠状病毒肺炎病例**616**例 (湖北省444例, 四川8例, 山东6例, 广西5例, 贵州3例, 福建4例, 安徽9例, 海南4例, 江西3例, 天津4例, 河南5例, 重庆9例, 澳门2例, 湖南9例, 辽宁3例, 北京14例, 广东32例, 上海16例, 浙江27例, 河北、云南、宁夏、吉林、山西、台湾、香港、黑龙江、江苏各1例), 疑似395例, 治愈28例, 死亡**17**例。

其中**湖北省是目前全国疫情重灾区, 确诊444例**, 疑似病例数待确认, 治愈28例, 死亡17例, 已有**15名医务工作者确诊为新型冠状病毒感染的肺炎病例**。

为防止病毒进一步扩散, 2020年1月23日10时起, 武汉市城市公交、地铁、轮渡、长途客运暂停运营, 在城市暂时封闭情况下, **美国卡瓦集团第一时间捐赠了消毒物资——医用级别的可杀灭冠状病毒的专业物表消毒湿巾卡瓦布**, 由**武汉当地授权经销商武汉双龙公司代表于1月23日上午送抵湖北省疾病预防控制中心**, 帮助抗击在疾病防控第一线的疾控专业人员, 在流行病学调查、环境消毒、实验室检测等环节做好环境管控, 切断传播途径, 控制新型冠状病毒的传播。湖北省疾病预防控制中心对卡瓦集团的捐助表示由衷感谢!

本次美国卡瓦集团捐赠的消毒物表物体表面消毒湿巾——卡瓦布CaviWipes, 由美国环境保护署(EPA)认证, 广谱杀菌, 具有美国三方检测实验室出具的**杀灭人类冠状病毒认证, 杀灭率达99.999%以上\***, 是应对本次新型冠状病毒感染爆发有效的消毒利器。





# Supporting 80+ countries around the world

**Italy** - Kerr Prevention donated CaviWipes to Fondazione IRCCS Policlinico San Matteo Foundation in Pavia. This is one of the hospitals located in Northern Italy that was part of the “red zone” and faced shortages of disinfection and PPE products.

**South Korea** - Since the beginning of the outbreak in South Korea, Metrex has been working closely with local distributors to donate and support hospitals and stand by their side.

**US (Detroit, Chicago, New Orleans)** – Metrex donated surface disinfectant products to states most in need including to the Detroit Local Firefighters & also local hospitals battling shortage of PPE.



# Our Infection Prevention Solutions

Metrex, one of Envista's business unit, is a leader in the manufacturing of infection prevention solutions

## Surface Disinfectant



## Hand Hygiene



## Protection Barriers



## Splash Protection



## Instrument Reprocessing



## Liquid Medical Waste Disposal



## Operator Disposable



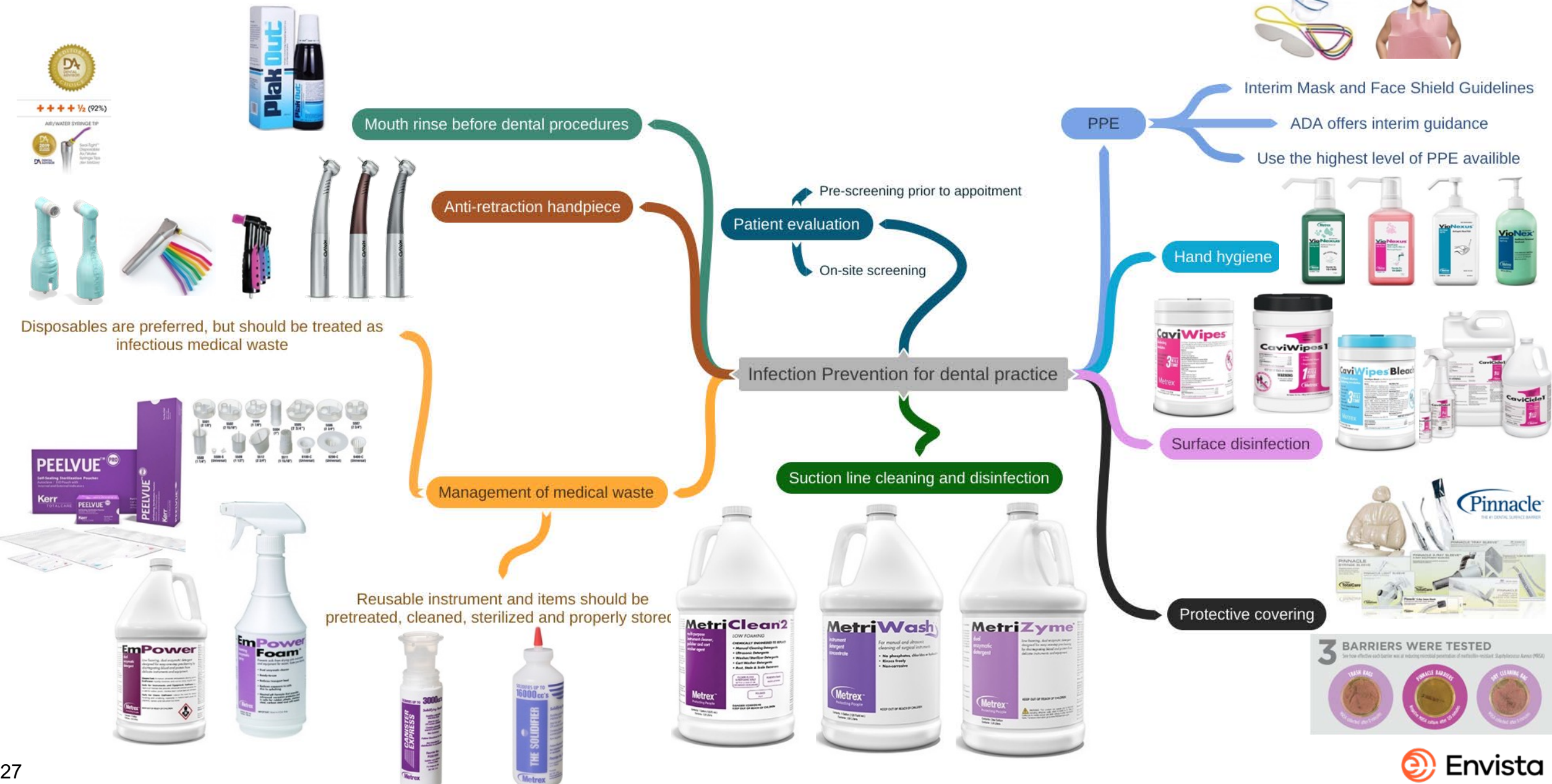
## Air/Water Syringe Tips



Exclusive solutions by



# Our Infection Prevention Solutions



# KaVo Turbines/Handpieces

The ADA Interim Guidance for Minimizing Risk of COVID-19 Transmission states that **anti-retraction** functions of handpieces may provide **additional protection** against cross-contamination.

KaVo MASTERtorque™ turbines/air-driven handpieces are the only anti-retraction system featuring the unique **Direct Stop Technology** (DST).

Learn more about DST at [kavo.com](https://www.kavo.com)

>> The only  
**anti-retraction**  
handpiece with  
Direct Stop Technology™ for  
**improved safety.** <<

KaVo MASTERtorque High-speed Air-driven handpieces

**DST**

KAVO MASTERtorque  
LUX M8900 L

KAVO

# KaVo Turbines/Handpieces

The below Kavo products are equipped with anti-retraction valves. KaVo dental turbines and dental handpieces are used together with this MULTIflex couplers and the dental low-voltage motors.

## Air-Driven handpieces

1008.7800 **MASTERtorque™ M8900 L (DST)**  
3001.0000 **MASTERtorque Mini M8700 L (DST)**  
1006.9200 **EXPERTtorque™ LUX E679 L**  
1006.6400 **EXPERTtorque Mini LUX E675 L**  
1008.1641 **SMARTtorque™ LUX S619 L**  
1008.1643 **SMARTtorque Mini LUX S615 L**  
1008.1642 **SMARTtorque S619 C**

## MULTIflex™ couplers

1007.3201 **460LED Coupler**  
1001.7599 **460LE Coupler**  
1007.3197 **465LED Coupler**  
0553.1550 **465LRN Coupler**  
0553.1390 **1390 Coupler**

## Straight & contra-angle handpieces

1009.3630 **MASTERmatic™ LUX M25 L**  
1009.3640 **MASTERmatic LUX M05 L Mini**  
1007.5550 **EXPERTmatic™ E25 L**  
1007.5551 **EXPERTmatic E25 C**

## Low-voltage motors & dental air motors

1007.0150 **INTRA LUX KL703 LED Electric Motor**  
0535.5250 **INTRAmatic™ 181 M Air Motor**  
0535.5200 **INTRA 181 H Air Motor**  
0535.5210 **INTRA LUX 181 L Air Motor**



# Additional Learning Resources

A selection of free, on-demand webinars:

## 1. Coping with Coronavirus (COVID-19)

[Learn more](#)

Dr. Molinari

## 2. An Overview of Infection Prevention in the Dental Office

[Learn more](#) - EARN 2 CE CREDITS FREE WITH CODE KKINF20:

Dr. Fiona M. Collins

## 3. Surface Disinfection: Safe, Simple & Standard Practice

[Learn more](#)

Dr. Fiona M. Collins, Noel Kelsch

## 4. Barrier Protection: Covering your Bases

[Learn more](#)

Dr. Fiona M. Collins, Noel Kelsch

## 5. Outbreaks Preparedness 101

[Learn more](#)

Sharon Ward-Fore, Infection Preventionist  
MS, MT (ASCP), CIC

**Additional resources and information available at [envistaco.com/covid-19-update](https://envistaco.com/covid-19-update)**

# **Our goal is your business success**

## **Continuous Improvement as Competitive Advantage**

We live in constant pursuit of progress and view continuous improvement as a mindset, culture, and guiding principle.

## **Innovation in Action**

We help our partners build thriving practices and draw on our deep expertise to transform the industry.

## **Relationships Built on Respect**

We are committed to providing the holistic support and training needed to unlock value and sustain achievement.

## **Better Choices, Better Outcomes**

Through world-class products, tools, and digital workflows, we help you increase predictable outcomes and deliver better patient care.

Thank  
you