

PRE-DENTAL PRESS

University of California, Berkeley



Welcome to the PDP!

In this issue, we report on some event highlights of this semester in Cal Pre-Dental Society (Cal PDS) as well as feature outstanding publications submitted by our members. In light of the unprecedented turn of events due to the coronavirus pandemic, we are proud of the officer board for stepping up and continuing to make pre-dental opportunities possible for our members and for our members' continued resiliency during this difficult time. We discuss our transition to a digital form of Dental Health Awareness Week as a successful attempt to reach a student populations outside of UC Berkeley on page 2, offer advice for staying on track as pre-dental through remote work on page 7, and reflect on major take-aways from our general meetings' guest speakers on page 9. Special thanks to our intern Jenny Chin for all her hard-work this year as part of the Publicity Committee and her contributions to this issue!

Be well, stay healthy, and we hope to see you next semester!

- Annie La and Veronica Wong, PDS Publicity Coordinators
2019-2020

IN THIS ISSUE

**DENTAL HEALTH
AWARENESS WEEK:
GOING COMPLETELY
DIGITAL?**

**COVID-19 AND SPECIAL
PRECAUTIONS IN
DENTISTRY RESEARCH**

**PDS MEETINGS OVER
ZOOM, DEOP,
PROCEDURE SPOTLIGHT
AND MORE**

**LETTER FROM THE
EDITORS AND MEET THE
PUBLICITY COMMITTEE**

DENTAL HEALTH AWARENESS WEEK

BY JENNY CHIN

In observance of Dental Health Awareness month, we, the publicity committee of PDS, planned a whole week of Dental Health Awareness Week (DHAW), an annual tradition each spring semester. DHAW was held from March 2-6, coinciding with midterm season; the publicity committee wanted to provide educational resources to guide students in maintaining good oral health while juggling with the rest of their midterms. We created

original content regarding specific oral health topics through Powtoon to make it more convenient and interactive for students to learn about essential aspects without having to go out of their way. For the Spring 2020 semester, we decided to focus on dental insurance, common dental diseases, healthy dental habits, and common dental procedures.

On Monday of DHAW, our video broke down dental insurance and understanding dental benefits with the Student Health Insurance Plan (SHIP). The Powtoon explained the differences between in-network, which is part of the

the health plan, and out-of-network providers, which are not part of the health plan. It also explained the dental benefits students have while enrolled in SHIP, such as cleanings, dentures, and crowns.

On Tuesday of DHAW, our video presented a dental procedure spotlight on composites. Composites are tooth-colored fillings made of synthetic resin-powered ceramic and plastic mix. The Powtoon also goes through the specific procedures of composites, so we hope students can understand what is being done during a composite if they ever receive this treatment!

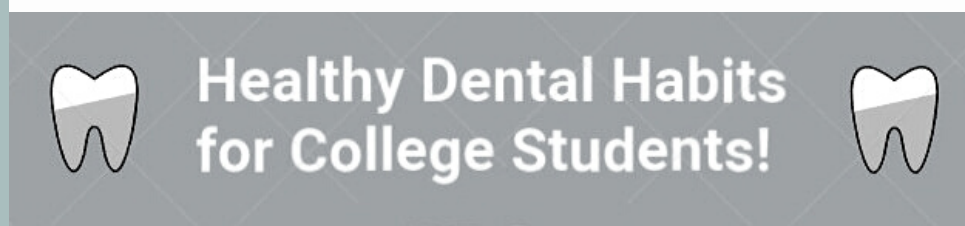
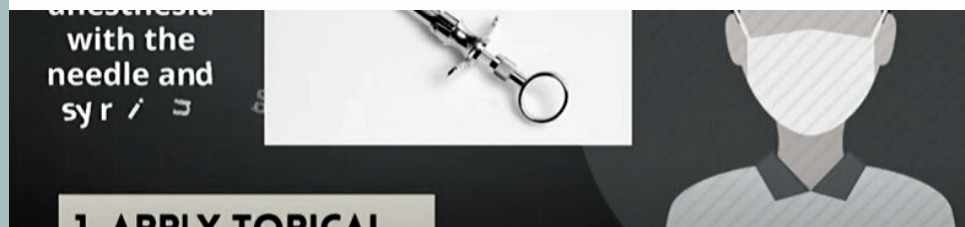
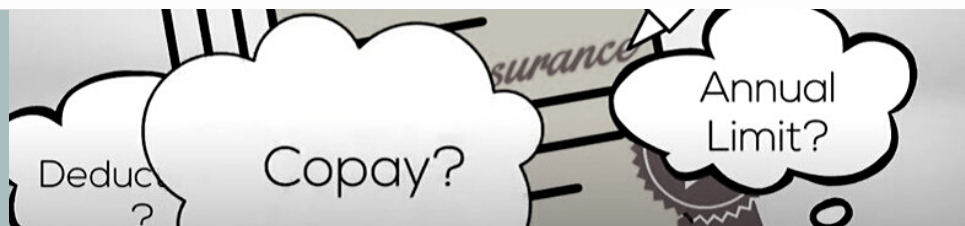
Dental Insurance and SHIP

Dental Procedure: Composites

Healthy Dental Habits

Common Dental Diseases

MON
TUES
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decay! Periodontal disease is primarily the infection and inflammation of gums, and can be divided into Gingivitis and Periodontitis. Oral cancer, characterized by swelling of areas in the mouth, can be prevented by avoiding sun exposure.

On the last day of DHAW, the publicity committee set up a tabling event consisting of PDS members handing out pamphlets with important information from our oral health video series, as well as a Pie-A-Predent event. For \$2, students of UC Berkeley could pie a PDS officer/intern to support our club. Publicity coordinator Veronica Wong even dressed up as a toothpaste tube while holding poster boards full of oral health information! We had so much fun talking to the community about oral health issues and answering their oral-health related inquiries, and look forward to holding DHAW again in Spring 2021!



Go to
tinyurl.com/2020dhaw
to watch our Dental
Health Awareness Week
informational videos!



Member's Retreat

FEB 26 -

Our Internal Affairs

Coordinators Irene Huang and Nathane Elazegui along with their interns, Diana Kim Nayoon Kim, worked diligently to make our Spring Member's Retreat an evening to remember! Not only was it an informative night as we introduced the board and discussed the history of PDS, but it was also a great bonding opportunity as a group with our Watermelon game and numbers game. With smaller break-out groups we competed in a mirror madness game that tests indirect vision, a twenty objects game testing memory, and a chopsticks pass game testing manual dexterity.





COVID State of Mind

BY VERONICA WONG

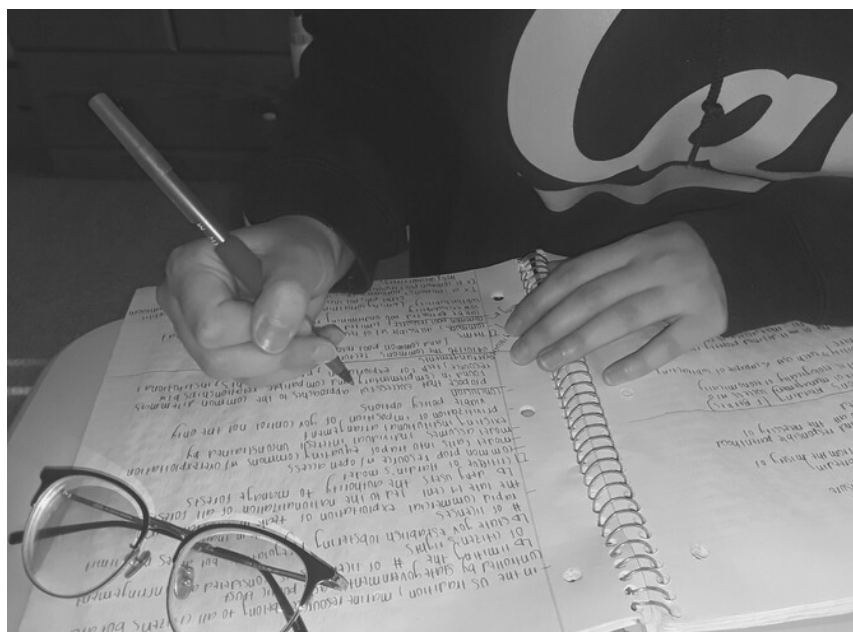
At the time of writing this article, it is the eighth week of self-isolation. I have taken five rather painful online midterms, submitted three awkward recordings to the newly-virtual UC Berkeley Wind Ensemble, and had my wif drop out during lecture more times than I can count. When administration announced that classes would be online until spring break, I left for home, not realizing that I would likely not see some of my out-of-state and graduating friends again. All of us have had jobs, clubs, research, and volunteer opportunities cancelled. Even though the past few years of protests, wildfires, and power outages have transformed Cal students and faculty into quite a resilient bunch, I am confident that not a single one of us expected or prepared for this situation, either academically or mentally. Suffice it to say: I'm losing my mind a little bit.

It is at a time like this that I realized even more how important PDS is to me. During the school year, the two hours reserved for PDS were a delight, a little break in my schedule to spend time with friends and get excited about

our future careers. But now, in the time of pre-recorded lectures on bCourses and near-silent discussion section with invisible, muted classmates, PDS meetings have been something of a blessing. The routine of getting to see people's faces and hear their voices is an unexpected relief every week -- they're still here and they're still doing fine! Over Zoom officer interviews we hosted this past weekend, we had a few laughs when a current officer stood up during a break, inadvertently revealing to the camera that he was wearing basketball shorts with his super professional suit jacket and tie. The weekly presentations on pre-dental topics are not only fascinating and informational, they also provide an anchor point, reminding us that the future we're working so hard for is still up ahead; the road is just a little bumpier than any of us expected.

As a club, we have definitely made the best out of the circumstances. We scheduled speakers that would have normally been too busy or far away to get to speak to us and hosted cute movie night bondings. But more than anything else, the meetings provide routine and a support system of friendly faces. PDS tells us that we pre-dents are truly all in this together, and for this reminder, I couldn't be more grateful.





- Read books that explore the terrifying past of dental procedures and transition to modern-day procedures like James Wynbrant's *The Excruciating History of Dentistry*, the different specialties within dentistry, give sight about being a general dentist, the interdisciplinary nature of dentistry like Dr. Steven Lin's *The Dental Diet*, or the epidemic of dental disease and the role of policy and public health like Mary Otto's *Teeth: The Story of Beauty, Inequality, and the Struggle for Oral Health in America*. This is also a good time to read about other health careers if you are still exploring that possibility.



Staying on Track for Pre-Dental Through Remote Work

BY ANNIE LA

During our Topics in Pre-Dentistry: A PDS Officer Panel event hosted via ZOOM on April 8th, in which officers and members were split into breakout rooms to discuss common pre-dental topics, many members expressed concern about having their planned pre-dental spring and summer activities such as shadowing, research, extracurriculars, and outreach trips canceled as a result of the pandemic. This does not mean you should put your pre-dental journey on pause until the world returns to some form of normalcy. Instead you should take advantage of the free-time and online resources to continue to explore and conduct thorough research on the different aspects of the field, dental schools, clinical volunteer positions, etc. In this article, I discuss some recommendations for staying on track in your pre-dental journey through remote work.

- Listen to podcasts such as ADA's Tooth Talk, hosted by the American Dental Political Action Committee and focused on dental legislation and advocacy, or ADA's Beyond the Mouth, hosted by Dr. Betsy Shapiro where they "won't talk about clinical dentistry, but everything else is fair game." Topics range from avoiding burnout while in dental school, maintaining good mental health as a dentist, running a private practice, etc.
- Attend webinars, virtual tours, and virtual fairs hosted by dental schools.
- Conduct research on dental schools. Compare programs, tuition, student life on and off-campus, student-to-faculty ratios, incoming class statistics and student profiles, and faculty research.
- Read PDS's academic resource guides on topics ranging from DAT's, stress management, and dental school interviews.
- Explore new hobbies such as painting, ceramics, or playing an instrument that can improve your manual dexterity.
- Seek out virtual volunteer opportunities. Virtual volunteer opportunities range from serving as a translator of medical texts and crisis response communications with Translators without Borders, to a support system to those seeking emotional support via 7 Cups, to volunteering with the UN on their projects for COVID-19 Response such as translating and proofreading surveys about COVID-19 behaviors to their teaching and training efforts targeting underprivileged children across the globe. Check out the Career Center Pre-Health COVID-19 Resources for updates on different opportunities.



PDS GENERAL MEETINGS, ZOOM EDITION

BY VERONICA WONG

On Friday, March 13th, Chancellor Carol Christ announced that due to the escalating COVID-19 pandemic, UC Berkeley would be holding classes online through the end of the semester. Accordingly, Cal PDS decided to cancel all events through spring break to give time for our members to adjust, and to start hosting General Meetings over Zoom once break was over.



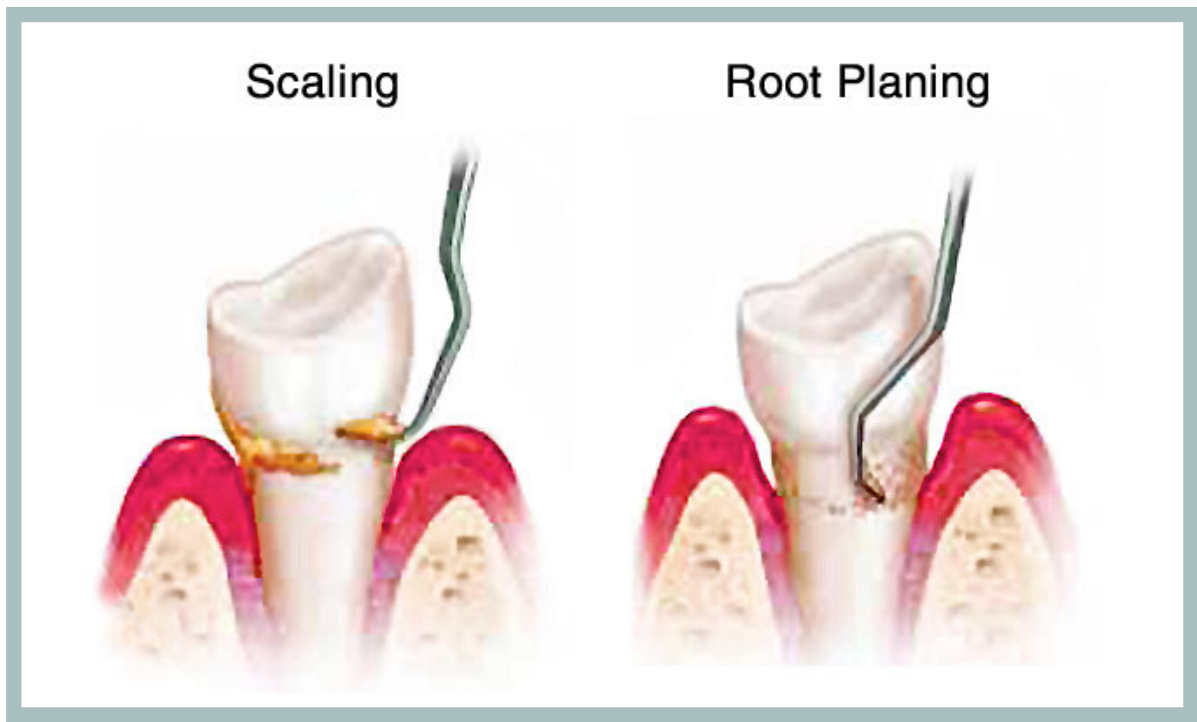
April 8: The PDS officers gave a panel over Zoom on several pre-dental-related topics, including taking the DAT, doing research as an undergrad, shadowing a dentist, doing extracurriculars, and the application/admissions experience. Since there were so many presenters, there was plenty of time for each attendee to have a good discussion with and ask specific questions to individual officers. This was our first meeting after quarantine, and it was so nice to finally see each other and make sure we were all doing okay.

April 15: We had a presentation by Roger Mraz, UCSF Program Administrator, as well as Angela Chen and Tony Qu, two Cal alumni currently studying at UCSF. The presentation was

focused on giving information about research opportunities in dental school and why students may wish to consider research either before or as a part of their dental school education. It also provided information on the dual DDS/PhD program and why one may want to participate in one. We had an informational and interactive discussion, and I'm sure many members left feeling more interested in dental school research!

April 22: PDS alumni Chloe Tsang and Alina Tipton gave a presentation about their experiences as dental students at the Arizona School of Dentistry & Oral Health and UCLA School of Dentistry, respectively. They discussed changes to the profession, such as the rise of corporate dentistry and mid-level providers, gave advice for the application process, and shared reasons why they chose their dental schools and current career paths. Chloe is finishing up D4 and is going into public health dentistry, while Alina is finishing her General Practice Residency and is starting her endo specialty soon. Thank you so much, Chloe and Alina — we love hearing from our alumni!

April 29: Another engaging presentation from a PDS alum: Dr. Sheena Vaswani, Berkeley class of 2009 and NYU Dentistry class of 2013! She is an associate doctor in the San Jose area who has been practicing for seven years. Dr. Vaswani shared her journey both getting into dental school and beginning her career after graduation, giving us information on the types of opportunities that new dental school grads have. She also talked about how her offices have dealt with the coronavirus pandemic, as well as how she expects the field of dentistry to change after the stay-at-home orders are lifted. It was a fascinating presentation, and we would love to hear from Dr. Vaswani again!



Dental Procedure Spotlight: Scaling and Root Planing

By Annie La

This procedure can be conducted by the dentist or dental hygienist (in the presence of the dentist). The Scaling and Root Planing procedure is commonly known as a deep cleaning and it is commonly confused with the Prophylaxis procedure, the regular cleaning. A deep cleaning is required when the patient's gum pockets between the teeth and gums loosens and deepens due to the formation of tartar, hardened plaque, at the roots, making the patient susceptible to periodontal disease. Removing the tartar allows the gums to tighten around the teeth. The main difference between the deep cleaning and regular cleaning procedures is that during an SRP, the dentist scrapes off tartar, hardened past the gumline and along the root of the tooth with either a cavitron, an ultrasonic scaler that vibrates to loosen tartar, and/or scalars. Comparably, in a regular cleaning, the dentist removes tartar from the crown and from surfaces above the gumline, and thus often does not require anesthesia.

Main Materials: Mirror, explorer, perioprobe, cotton pliers, cavitron, scalars, anesthesia, needle and syringe

Steps:

1. Use the explorer and mirror to examine the health of the gums, teeth, and tongue.
2. Apply topical anesthesia with a cotton swab for approximately 30 seconds. Use the needle and syringe to administer the anesthesia. (For injections in the maxillary region septocaine will be used. For injections in the mandibular region, lidocaine will be used. In special circumstances mepivacaine will be used.)
3. Use the cavitron to scrape off the tartar from the tooth's surfaces.
4. Use the scalars to reach any remaining areas of the tooth where tartar remains.

COVID-19 Implications in Dentistry

BY ANNIE LA

In a review conducted on the implications of COVID-19 in dental settings and the special precautions that must be employed to reduce the spread of coronavirus, Ge et al. discuss how a majority of dental procedures heighten the risk of infection transmission via droplets and aerosols.

Figure 1 highlights the differences between the transmission between aerosols and droplets from the infected patient to susceptible individuals (dental staff and other patients). Compared to large droplets ($>5\mu\text{m}$ diameter) which immediately fall to the ground, small aerosols ($<5\mu\text{m}$ diameter) have a “low settling velocity” and therefore remain suspended in the air allowing for further travel from the infected patient (WHO, 2014).

The aerosols combine with blood and saliva to create bioaerosols that may potentially be contaminated with viruses and have the same transmissibility properties of small aerosols. Ge et al. uses the 2004 SARS-CoV as a model to study COVID-19 and explains that because high concentrations of SARS-CoV was found in saliva with a majority of cases linked to transmission from “aerosol-generating procedures” in hospitals, major precautions must be employed to avoid this parallel for COVID-19. Figure 2 compares the size and potential distance traveled by the aerosols generated by the dental high-speed handpiece, cavitron (ultrasonic scaler), and the air-water syringe, instruments required for a majority of dental procedures.

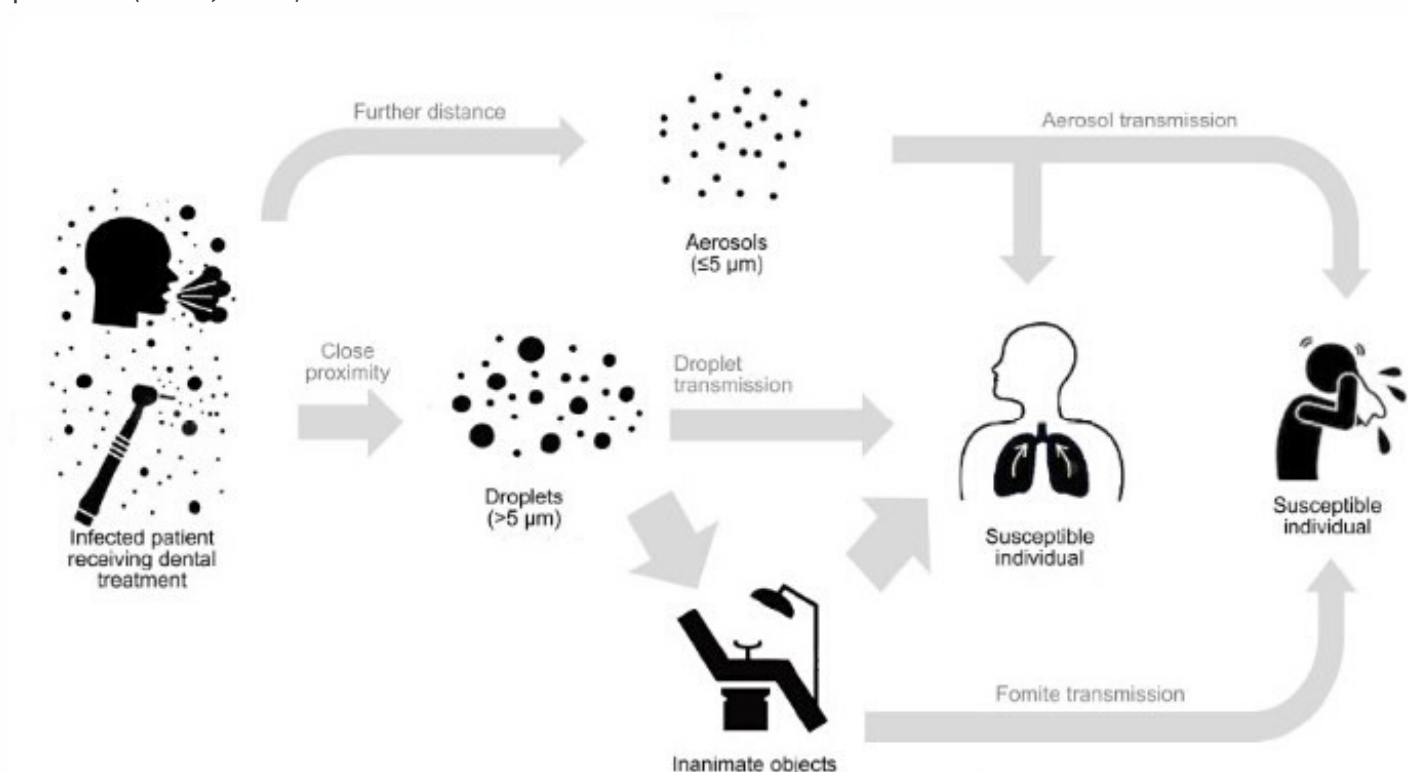


Fig. 1 Different routes of transmission in dental setting: aerosol, droplet, and fomite

Ge et al. /J Zhejiang Univ-Sci B (Biomed & Biotechnol)

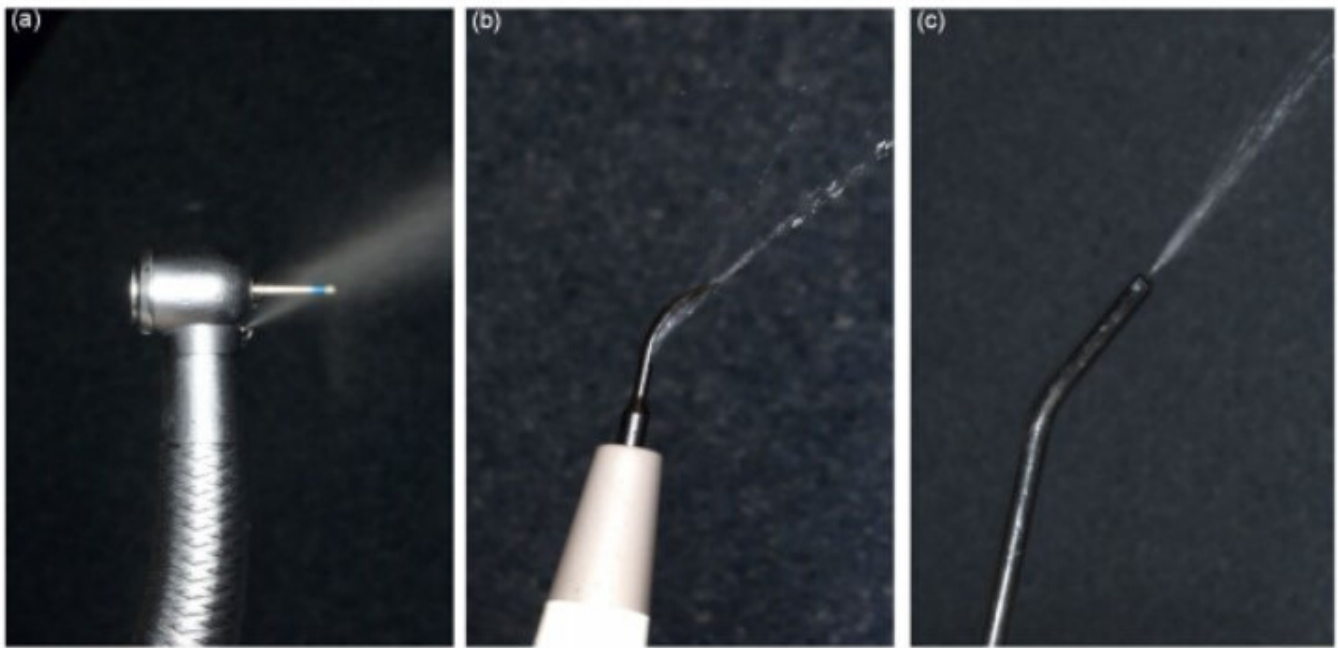


Fig. 2 Aerosols generated by dental high-speed handpiece (a), ultrasonic scaler (b), and air-water syringe (c)

In light of this review, evolving research on COVID-19, and as an attempt to alleviate the burden on hospitals emergency departments, the ADA has published guidelines on what constitutes as a dental emergency versus a non-emergency procedure on March 18.

In order to mitigate the spread of the coronavirus, the ADA is recommending that all dentists terminate non-emergency care and continue emergency procedures as “minimally invasively as possible” (ADA). The ADA has also released guidance on minimizing the risk of transmission during emergency dental procedures including remote dental emergency screenings via tele-dentistry, increased use of hand instruments, dental dam (rubber dam covering for the mouth usually used for root canal therapy), and high volume/ high speed suction to combat aerosol generation, use of N95 masks, etc. (ADA).

Sources:

ADA Develops Guidance on Dental Emergency, Nonemergency Care, www.ada.org/en/publications/ada-news/2020-archive/march/ada-develops-guidance-on-dental-emergency-nonemergency-care.
 Ge, Zi-Yu, et al. “Possible Aerosol Transmission of COVID-19 and Special Precautions in Dentistry.” *Journal of Zhejiang University-SCIENCE B*, 2020, doi:10.1631/jzus.b2010010. WHO, 2014. *Infection Prevention and Control of Epidemic and Pandemic-Prone Acute Respiratory Infections in Health Care*. World Health Organization, Geneva, Switzerland.

Tyson Tonokawa
Nicholas Hy
Rachel Zinshteyn
Anthony Degoian
Camille Green
Justin James Donato
Lauren Park
Thanh Tieu
Anna Camile Guinto
Daniella Dror
Jasmine Tuason
Jody Lee
Lauren Hotseung
Sophie Zhang
Titanium Wang

CS Active Members' Recognition



Cal PDS members are greatly encouraged to participate in community service activities offered. This semester our Community Service Coordinators Dipika Datta and Thanh Tieu, alongside their community service interns Tyson Tonokawa, Anthony Degoian and Lauren Park organized a wide variety of opportunities from serving at Loaves and Fishes, braiding dough at Challah for Hunger, weeding at the Berkeley Rose Garden, and selecting books for prisoners in the Prisoners' Literature Project. Dipika, Thanh, and all of PDS want to thank you for all of your efforts..



Thank you from the 2019-2020 Board

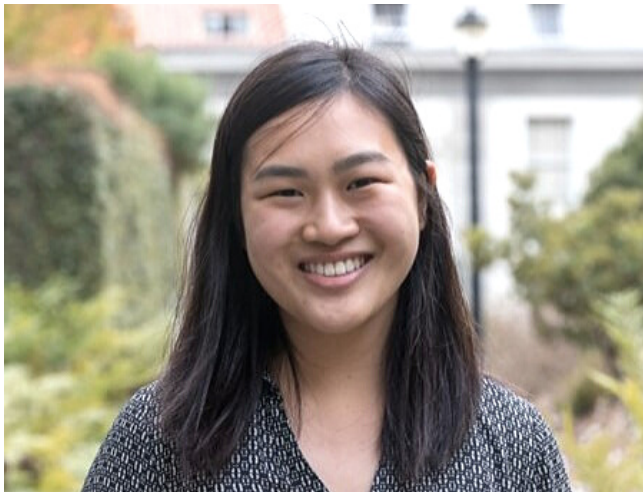
Meet the Publicity Committee

2019-2020

VERONICA WONG

Co-Publicity Coordinator

Hi! I'm a 3rd year majoring in Molecular Environmental Biology and minoring in Nutritional Sciences. I've been in PDS since freshman year and it has been a super fun experience! Outside PDS, you can find me playing piccolo in the Cal Band, speed-walking to class, and falling asleep at various cafes around campus. Hit me up if you want to talk about academics, CNR, balancing extracurriculars, and boba/ coffee/ library spots!



JENNY CHIN

Publicity Committee Intern

Hi! My name is Jenny and I'm a first year Nutritional Sciences major. This is my first semester in PDS; I've loved my time here and definitely look forward to future semesters! In my free time, I love to travel, watch musical theater, dance, and explore cute cafes (+ eat of course)!

ANNIE LA

Co-Publicity Coordinator

Hi! I am a 3rd year Integrative Biology major and Public Health minor. Through PDS, I am grateful to have learned so much about the field of dentistry, the different specialties, and how to prepare for dental school. In my free time, I enjoy bullet journaling, hiking, trying out new recipes and taking my dog on walks.



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