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Oral Hygiene and COVID-19

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Published in Spanish at Gaceta Dental

"The wise man does not expose himself needlessly to danger, since there are few things for which he cares sufficiently; but he is willing, in great crises, to give even his life -knowing that under certain conditions it is not worthwhile to live."

Aristotle

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Héctor J. Rodríguez Spain Twitter @flyerLPA IG dr.rodriguezcasanovas implantesdelfuturo.es On affirme souvent que l'homme peut soigner l'homme tant qu'il s'agit de viscères ou de squelette, mais dès que l'on touche à son âme, c'est trop peu d'une vie pour atteindre ce but...
Pardonnez nos offenses - Romain Sardou

Las ideas no duran mucho. Hay que hacer algo con ellas **Santiago Ramón y Cajal** - Nobel price 1906

Foreword

We live in times when our certainties falter. We must proceed prudently

Oral hygiene and virus infections, on the subject of COVID-19

Toothbrush is the most common oral hygiene aid to prevent dental disease and improve oral health.

Toothbrushes can become contaminated with microorganisms present in the oral cavity. The retention and survival of microorganisms in it after brushing represents a possible cause of contamination of the mouth.¹

¹ Wetzel WE, Schaumburg C, Ansari F, Kroeger T, Sziegoleit A. Microbial contamination of tooothbrushes with different principles of filament anchoring. J Am Dent Assoc 2005;136:758-65.

Numerous studies² have shown that prolonged use of the toothbrush facilitates contamination by various microorganisms³. The possibility of toothbrushes being associated with the transmission of serious health problems has also been well documented.⁴ ⁵

Often after brushing, the toothbrush is only rinsed in running water and stored in bathrooms that are ideal places to harbor millions of microorganisms.

These microorganisms grow and flourish in hot, humid conditions.

Therefore, given the current situation in which many of us, throughout the world find ourselves, maintaining excellent personal hygiene has never been so important, and for this we must take into account a series of tips.

Especially wash your hands regularly with soap and water for at least 20 seconds or use hand sanitizer gel when this is not possible.

One of the most important things to remember is that following these tips and being as hygienic as possible not only helps protect you, but also protects those around you.

 $^{^2}$ Sogi SH, Subbareddy VV, Kiran SN. Contamination of tooth brushes at different time intervals and effectiveness of various disinfection solutions in reducing the contamination of tooth brush. J Indian Sot Pedo Prev Dent 2002;20:81-5.

 $^{^3}$ Sogi SH, Subbareddy VV, Kiran SN. Contamination of tooth brushes at different time intervals and effectiveness of various disinfection solutions in reducing the contamination of tooth brush. J Indian Sot Pedo Prev Dent 2002;20:81-5.

⁴ Warren DP, Goldschmidt MC, Thompson MB, Adler –Storthz K, KenneHJ. The effects of toothpastes on the residual microbial contamination of toothbrushes. J Am Dent Assoc 2001;132:1242–5.

^{5 5} Sammons Rl, Kaur D, Neal P. Bacterial survival and biofilm formation on conventional and antibacterial toothbrushes. Biofilms 2004;1:123–30.

Never share a toothbrush.

It doesn't matter if you are related or how close you are to the people you live with, you should never share your toothbrush with anyone else.

This is one way that viruses and blood-borne diseases can be contracted from other people.

For the same reason, you need to make sure that the toothbrush heads are also kept separate from each other wherever you and the rest of the people living with you store their toothbrushes.

Close the toilet lid before flushing.

Where you keep your toothbrush is very important. If you store your toothbrush anywhere near the toilet, every time someone pulls on the chain, part of the spray will fly out of the toilet and fall onto your toothbrush.

Studies have been conducted that suggest the virus can be spread through fecal matter (poop). So, make sure your brush is a safe distance from the toilet, or better yet, make sure to close the lid before flushing.

Change your toothbrush regularly.

It is important to change the toothbrush or brush head at least every three months. Perhaps even earlier if the bristles wear out.

This helps ensure that you are brushing your teeth effectively. A worn out brush can't do the job you need.

Changing your brush regularly will also help prevent the spread of bacteria.

If you have had the coronavirus (or suspect you may have it), replace it with a new one.

Mouth cleaning. Rinses.

Brush daily with a fluoride toothpaste late at night and at least one other time during the day, at least.

Clean between the teeth every day with interdental brushes or dental floss and use a mouthwash.

We will only use mouth rinses that contain: Iodopovidone 0.2-1%, Cetylpyridinium chloride 0.05-0.1%, Hydrogen peroxide 1% and / or those that contain essential oils and alcohol. Mouthwashes MUST be used PURE, undiluted.

If you have tested positive for Coronavirus, you should also perform a preliminary rinse to reduce the viral load and finish with a cleaning of the toothbrush or brush head by immersing it in a glass with a solution based on sodium hypochlorite (bleach) for 30 minutes, once this time has passed, rinse with water and let dry.

Typical use of bleach is at a 1: 100 dilution of 5% sodium hypochlorite, resulting in a final concentration of 0.05%.



Having the brush free of bacteria and viruses, helps to reduce the spread with the brushes of people who are nearby. Do not forget that you have to change the brush once you have passed the contagion period, for your health and that of others.

⁶ Peng X, Xu X, Li Y, Cheng L, Zhou X, Ren B. Transmission routes of 2019-nCoV and controls in dental practice. Int J Oral Sci. 2020;12(1):9. Published 2020 Mar 3. doi:10.1038/s41368-020-0075-9

Visits to the dentist.

Keeping regular visits to your dentist will always be important. During this period of uncertainty, it is best to deal only with emergencies.

Your appointment can be delayed or canceled. This is for the safety of both staff and patients.

Clean your bathroom regularly

Our bathrooms are where many of us store our toothbrushes, towels, and other intimate items.

It is also the place we go to clean up. Therefore, for obvious reasons, it is important that your bathroom surfaces are cleaned regularly with a chlorine-based cleaning product (bleach).

Our oral health must always be a priority. Don't forget the simple day-to-day habits that will help you maintain a healthy mouth.

Drink plenty of water and reduce the amount and frequency of consuming sugary foods and drinks

You can find articles about caring for your brushes⁷ 8

Articles about COVID-19 and Dentistry

Please be safe

⁷ Frazelle MR, Munro CL. Toothbrush contamination: a review of the literature. *Nurs Res Pract*. 2012;2012:420630. doi:10.1155/2012/420630

⁸ Naik R, Ahmed Mujib BR, Telagi N, Anil BS, Spoorthi BR. Contaminated tooth brushespotential threat to oral and general health. *J Family Med Prim Care*. 2015;4(3):444–448. doi:10.4103/2249-4863.161350

About the author



Dr. Rodriguez is a periodontist that has been involved in teaching and lecturing since he graduated from the University of Texas DB HSC at Houston. He has been President of the Dental Board at Las Palmas (Canary Islands) and member of the board of the Spanish Society of Periodontology and a Trustee of their Foundation.

Currently he teaches periodontology at the Experto en Periodoncia Oviedo UEMC.