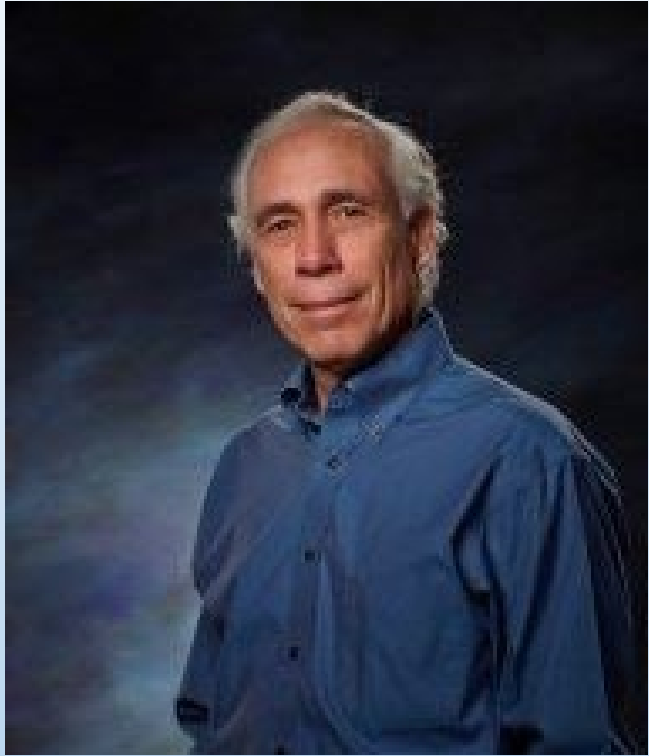


Preventive Dentistry

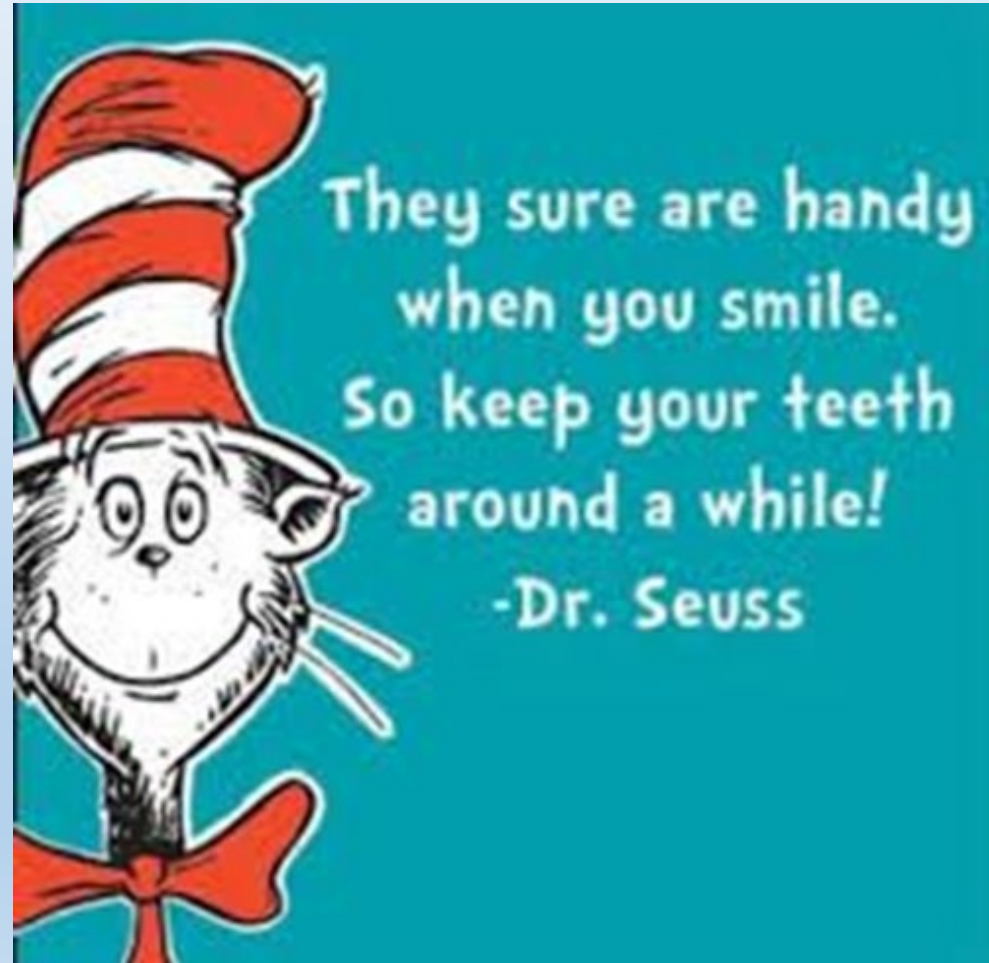
Improving Your Dental Oral Health and its Positive
Impacts on Your General Medical Health

PRESENTATION BY STAN S. KATZ DDS



- Stan S. Katz DDS shares his successful dental home care prevention techniques which will improve both your dental and general medical health.

You're never too young or too old to
take good care of your teeth.



What inspired this presentation?

- A health and wellness club invited me to give a live presentation on improving their dental oral health home care techniques & the positive impacts that might have on their cardiac and general health. Similar to learning how to correctly **swing a golf club** or **tennis racket**, there is an art to improved brushing and flossing technique, which will result in a healthier brighter smile, less tooth decay, improved gum (periodontal) condition, along with the elimination of bad breath, and benefits for your overall health.
- I'd given countless one-on-one instructions on dental oral health to individual patients. However, this larger audience required a PowerPoint slide show to illustrate the various concepts involved. This event was filmed and recorded, but being our first attempt, we experienced difficulties with the video lighting and sound pickup.



- As a way of educating and empowering the public, I've improved those PowerPoint slides and share them in this illustrated self-help digital booklet - And through comments received from readers, further fine-tune these slides for future live presentations & YouTube videos.
- Your feedback is most welcome and can be sent to: HorizonProductions3000@gmail.com
This presentation was created in 2023. It might be updated in coming years.
- To obtain the latest version, send your request to the above email address.
- Best regards from the author

Contrary to the saying,
“*What you don't know, won't hurt you,*”
this doesn't apply to dental home care.

- Preventive dental care is one of the best investments you can make for yourself.
- *On a Personal Note: from an early age, my dental experiences were challenging.* Though, I regularly visited a dentist and tried to take good care of my teeth, I found myself having frequent dental issues.
- I would discover later when I first started my training for the dental profession that I hadn't had a handle of proper dental care prevention techniques and or have a clear picture of how my general food diet and snacking impacted my teeth.
- And by utilizing improved oral hygiene home care techniques and more conscientious food choices, I have over the past decades, required minimal dental treatment, other than the usual checkups, cleanings, and replacement of worn out restorations.

Reviews

"Stan, Very nicely done. You have covered essentially all of the important concepts of home care with the need to be under the routine care of a dentist.

It presents a discussion that can be understood by the lay person."

David Tracy D.D.S. Oral Surgeon

Carlsbad, California

"Thank you for all your hard work to share this important information with us, and all your friends and contacts. This was very thorough and interesting-lots of visuals kept it moving.

Thank you so much.

Warmly,"

Annie and Sohrab Gandomi, Annie is a retired school nurse and Sohrab is a psychologist

"I read your Preventive Dentistry Booklet which is very thorough and helpful. I learned a lot, thank you. I will send the booklet to my two sons to read.

Many thanks!"

C. Hostler

Reviews

“Outstanding Such a brilliant and worthy contribution to others health! Good on ya :). Very best regards my friend.”

Tony H. Airline Pilot

“Thanks Stan! Great work.”

Doug De Stefano - Founder of www.AwakeningHearts.com

A holistic health and activities website.

“Thank you for your book. Lots of good information expertly formatted for easy on the eyes read. Well done my friend, and thanks again.

I will certainly share this with family and friends.”

Skip Dunham

“Thank you for writing this. I like taking control of my health and this is one area where I could use more information than two quick trips to the dentist each year can provide.”

Sharon Sorensen

Reviews

“OMG, what a beautiful gift! Thank you so much for sharing your expertise and your wonderful gift, spreading joy, knowledge and wisdom. I do love your booklet and I thank you for allowing me to share it!”

Kind Regards,”

Tatis Cervantes

“Lots of great information- I enjoyed being reminded of good dental care! My dentist will thank you!”

Janet Hund

“Your Preventive Dentistry PDF is very well done. I found it very thorough. Nice work!”

Jody Goran

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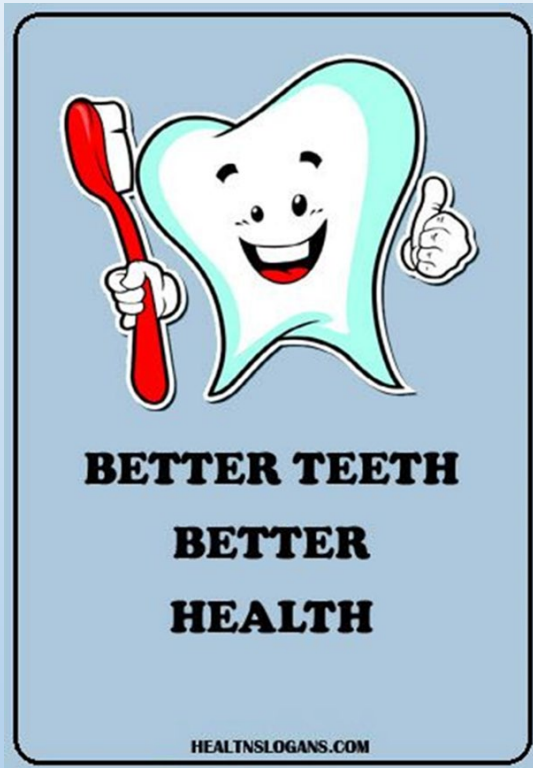
Please Note: A fair amount of information is covered.

You might find it helpful to visit several times to focus on the different topics.

The Art of Toothbrushing



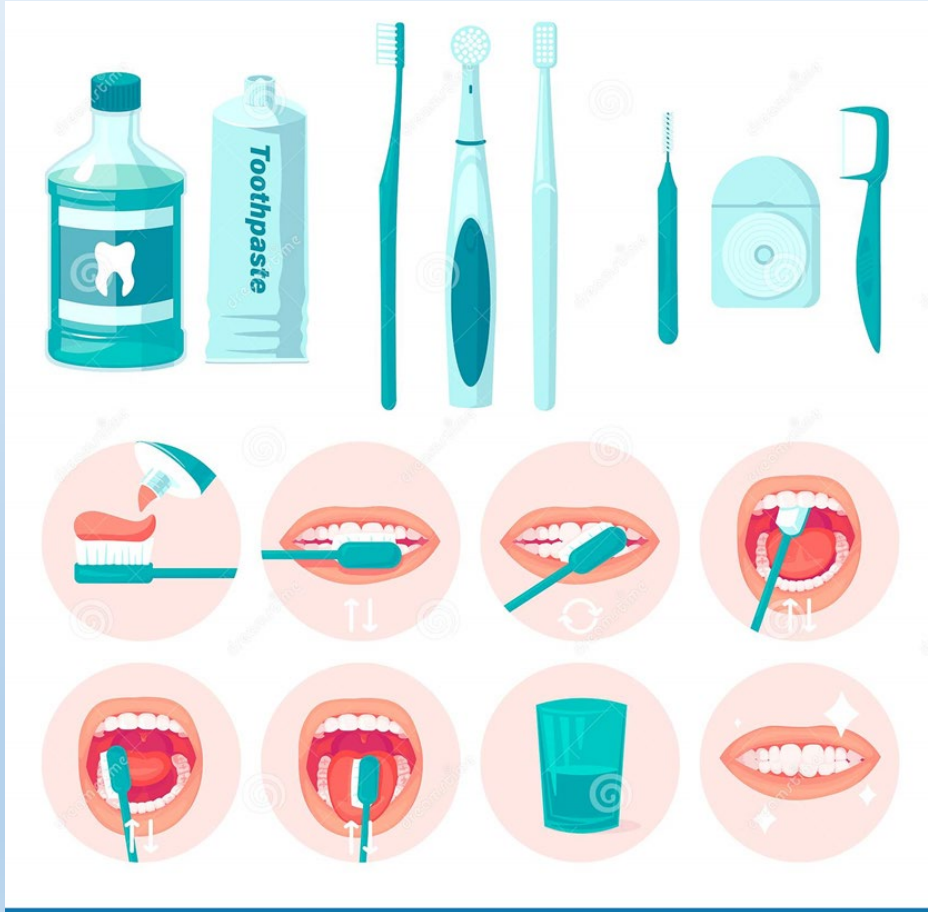
Some useful Dental terms



Tooth Decay is caused by Plaque, a sticky, largely colorless film of bacteria that naturally forms on your teeth. Tooth decay begins with the demineralization of Enamel, the outer layer of the crown of your teeth. Enamel is the hardest substance in the body. However, when you frequently eat sweets or drink beverages containing sugars, the bacteria in the plaque can more quickly produce acids that attack the tooth. This destruction can progress past the enamel into the next inner section of the tooth called dentin, which is softer than enamel. And from there it can next reach the nerves and blood vessels in the innermost section of the tooth which is called the pulp. If it reaches the pulp, it generally requires tooth removal or root canal therapy to save the tooth.

Periodontal Disease – begins with the inflammation of the gums surrounding the tooth. It can progress to destroy the bone support for the tooth below the gum line. This creates periodontal pockets where bacteria and food can hide, causing continuing problems. Besides acids, these periodontal bacteria produce other irritating waste products that inflame the surrounding periodontal tissue.

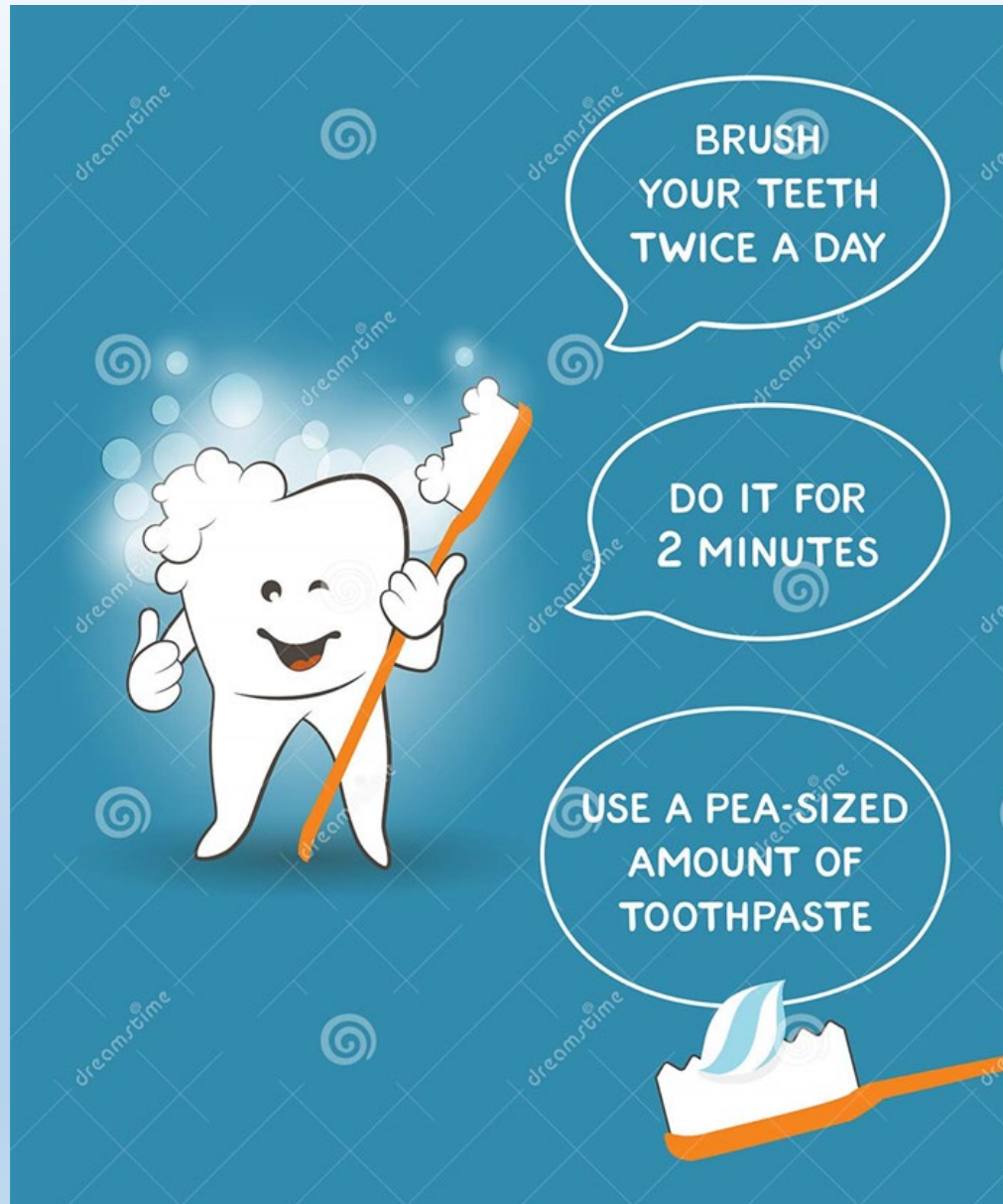
Oral Hygiene Aids



Everyone's teeth are different

Things to consider:

- Crowding
- Missing teeth
- Difficult to reach areas
- Presence of implants, crowns, bridgework, as well as partial dentures.
- The above factors will influence the technique that works best of you. However, the goals are similar, to clean all the surfaces of the teeth and eliminate harmful bacteria from causing tooth decay and damaging the periodontal bone and gum support for the teeth.



BRUSH
YOUR TEETH
TWICE A DAY

DO IT FOR
2 MINUTES

USE A PEA-SIZED
AMOUNT OF
TOOTHPASTE

Toothbrushing technique



To improve your brushing and flossing technique, visualize your teeth having 5 surfaces.

Side 1- Upper and lower teeth have one tooth surface facing the inside of your cheeks or your lips.

Side 2- Upper teeth have an inner surface facing the roof (palate) of your mouth, while the lower teeth have one inner surface facing your tongue.

Sides 3 and 4 – Most teeth have two surfaces where they make contact with adjacent teeth. These *interproximal* areas are where toothbrushing can't get to and floss is required to clean.

Side 5 – Your upper and lower *front teeth* have an incisal edge for biting and cutting into food. While your posterior teeth have a flat chewing (occlusal) surface for crushing food.

TOOTHBRUSHING

- Take **5 back-forth brush strokes** for each group of 3 to 4 teeth. Remember to overlap the teeth that you are brushing, so no teeth are missed as move around the entire upper or lower dental arch.
- Variations of the above brush stroke might include a slightly **circular motion**.
- For the **upper teeth** - incline the toothbrush bristles upwards at a 45 degree angle to clean both the teeth and the gum line. Take your time and practice in front of a mirror. Remember to repeat this process for the inside surfaces of your upper teeth.
- For the **lower teeth** - incline the toothbrush bristles downwards at a 45 degree angle to cleanse both the teeth and gum line. Remember to clean both the outer side of your teeth towards the cheeks and lips, and also the inner side adjacent to your tongue.
- In the past, another brushing technique was recommended. It utilized *up and down brush strokes*, but tended to miss cleaning the gum lines around the teeth.
- After meals it's a good idea to rinse your mouth well with water to get rid of residual food caught between your teeth. When convenient, you might use a plastic bristle-tip toothpick (available at most drug stores) to clean out the residual food still caught between your teeth.

Toothbrush selection

- There are many brands and designs, I tend to use the Butler brand or another high quality toothbrush.
- Recommend a **soft or medium type**.
- Choose a **size** that best reaches all of your teeth.
- You might even have a couple of toothbrushes, one with a larger brush head for most of your teeth - The other, a smaller brush head for those harder to reach areas.
- Try different types of toothbrushes and see what works best for you.

Toothbrushing suggestions

- When brushing your **furthest back teeth**, shift your lower jaw forward or to the side, so as to make more room for the toothbrush to reach those areas.
- **By not over-opening your mouth** while brushing your second and third molars, you create more space to fit in your toothbrush to clean the cheek side of those teeth.
- **When done with brushing**, check with your tongue to see if your teeth feel clean and smooth, almost as if you just had a cleaning at a dental office. If certain tooth surfaces are still a little rough, try brushing again - If that doesn't work, it is likely that specific area will be taken care of at your next dental cleaning appointment.
- A word of caution, many motivated individuals mistakenly **over-brush** certain teeth. This excessive brushing can potentially wear down the tooth enamel and also cause gum recession. By remembering to brush each group of teeth for just five back and forth strokes as you move along, you avoid these problems.

Toothbrushing suggestions

- As a goal, brush your teeth twice a day, morning and evening. Consider using a toothpaste containing baking soda, hydrogen peroxide, and fluoride 3-4 times per week. At other times brush with another brand of fluoride toothpaste that doesn't contain baking soda and peroxide, and thereby get the benefits of both types of toothpaste.
- Use a tooth paste with **sodium fluoride** rather than stannous fluoride or monofluorophosphate. Sodium fluoride is better absorbed by the enamel than the other two.
- If you have gums areas that have been neglected in the past, they might be a bit sensitive and may bleed to some degree. With improved brushing technique, the discomfort and bleeding should be largely be eliminated in a relatively short time.

As part of your brushing routine, you might also gently brush your tongue to clean off food debris and freshen your breath.

Take a deep breath prior to brushing your tongue, to avoid gagging.

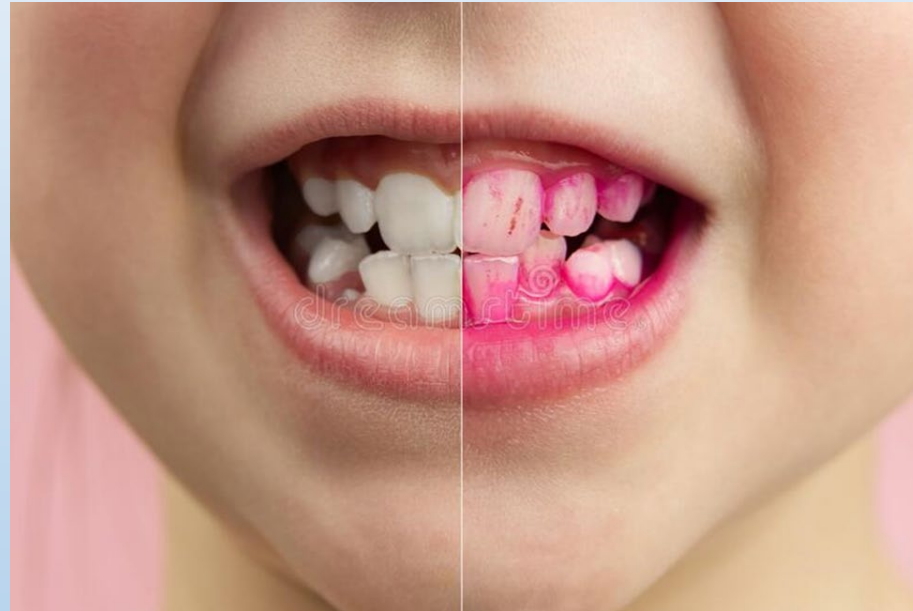


What is a **Plaque disclosing tablet** & How do I use it at home as part of my preventative dental care?



- As an aid for improving your dental care technique, the occasional use a plaque disclosing tablet can help identify areas of your or your child's teeth that were missed during their oral care routine.
- These tablets contain a harmless red dye that highlights the plaque that remains on the teeth after cleaning, making it easier for you to identify missed areas.
- For your children, this tool can assist you in showing them how to improve their brushing skills and the need for flossing.

Before and after. one side after being brushed and flossed, the other side appears as it originally looked right after using a dental disclosing tablet.



Close-up photo of young girl's teeth after using a Plaque disclosing tablet.
Please note: another pdf/booklet titled: [Children's Dental Health Care Suggestions](#) by Stan S. Katz will be available on the website Academia.edu.

Additional tips when using plaque disclosing tablet:

- Break tablet into quarters or halves. Only a small amount is required.
- Chew the tablet, swish it around, and then spit into a sink
- The remaining Dental Plaque will now be painted red by the Tablet
- Brush and floss away the red surfaces using the techniques discussed in this presentation.
- When assisting a child, first Watch them brush and floss unassisted
- Give positive encouragement as you guide them to improve their brushing and flossing technique. They will likely be impressed as they eliminate the red areas that they missed earlier.

The Choice between Electric versus Manual Toothbrushes

- Electric toothbrushes come in an amazingly wide variety of brands and models. And can range in price from surprisingly inexpensive up to more costly, higher performance models.
- It is advantageous to first learn how to correctly clean your teeth with a non-electric toothbrush. The reason being that you will better understand how your teeth require a systematic method to clean all surfaces.
- After you brush with a manual toothbrush, you can use a plaque disclosing tablet to see what areas were missed. You can also feel all your teeth with your tongue to see how smooth they are. Then, if you wish, you can try out an electric toothbrush and see how the results compare.



Which are more effective and safer to use, electric or manual toothbrushes?

- **The American Dental Association (ADA)** stated that both electric and manual toothbrushes can effectively remove plaque and bacteria from teeth, as long as you use a proper brushing technique and that the technique is more important than the tool. Jan 27, 2022
- However, incorrect electric or manual toothbrushing techniques can damage teeth and cause gum recession and sensitivity if done too forcefully or for too long. Some electric brushes have a red indicator light which shows if you're applying too much pressure, so do pay attention.
- Manual toothbrushing should take approximately two minutes to complete. Different electric toothbrushes recommend different amounts of time to complete the job. Some even have a timer.
- Both methods have similar goals - cleaning of all accessible tooth areas. And then flossing to get to those tooth surfaces not reached by brushing.

Electric versus Manual Toothbrushing

- The **Mayo Clinic** states that manual tooth brushing is effective. However, an electric toothbrush might be a great alternative, especially for **children, people with disabilities, older adults, and people who have arthritis or other conditions that make it difficult to brush well.**
- If you choose to use an electric toothbrush, make sure the toothbrush is comfortable to hold and easy to use. Your dentist might suggest a model with a brush head that rotates in one direction and then the other (rotating-oscillating head) or one that has very fast vibrating bristles.
- Other available features: adjustable power levels, timers, and rechargeable batteries. Follow the manufacturer's instructions as to when to replace the worn out brush head to ensure that the toothbrush continues working effectively.
- Whether you choose an electric toothbrush or a manual toothbrush, remember that what's most important is daily brushing and flossing.

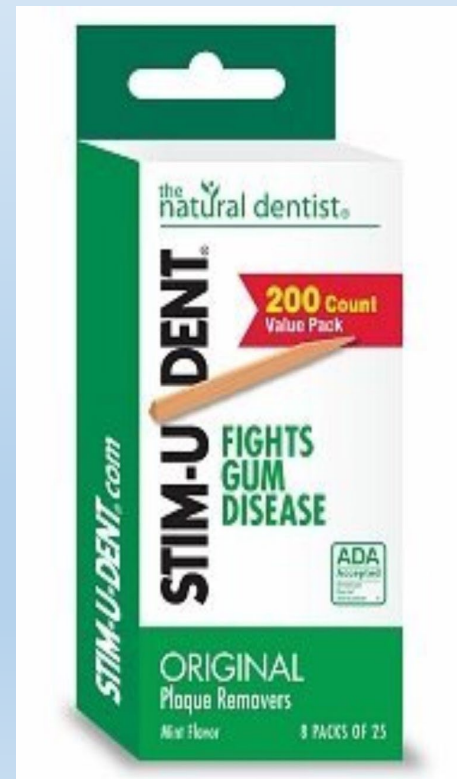
Often neglected Dental Areas that deserve attention

- **Beneath Dental Bridges**
- **Teeth supporting partial removable dentures**
- **Dental Implants, cleaning the gumline around these replacement Teeth**
- In addition to brushing, flossing, & perhaps dental irrigation, it can be helpful to use:
 - **Interproximal bristle brushes** to gently scrub beneath dental bridges. You can also use this small brush to introduce toothpaste beneath the bridgework and leave it there for a minute or two, then thoroughly rinse it out.
 - **Floss threaders** can assist in flossing under your bridgework.
 - **Stim-U-Dents and GUM Soft-Picks** can assist in cleaning off plaque between teeth.

The above dental aids are displayed in the next slide

*If you have **partial dentures**, remember to remove them when cleaning your teeth to have better access to the teeth supporting the partial denture.*

Interproximal Dental Brushes and Dental Floss Threaders can help clean under dental bridges. There are also interproximal cleaning aids Stim-U-Dent and GUM Soft-Picks. These are some of the choices available. Many folks floss in the evening, so you might consider using a GUM Soft Pick or Stim-U-Dent to quickly clean the food out from between your teeth in the morning prior to brushing after eating breakfast. You will likely find that certain teeth consistently have food packed between them. And these areas could become the next problem area, if not cleaned daily.



The role of Fluoride in Preventive Dentistry

The below statement comes from the **Medical News Today** article titled: “Fluoride in toothpaste: What it does, is it safe?” July 8, 2021.

“Many toothpastes contain **fluoride** as it offers the benefits of protecting tooth health. Too much fluoride can pose risks to health, but the amounts contained in toothpaste are generally safe if a person uses the toothpaste as advised.”

- **Fluoride toothpaste** benefits include:
 - The topical effect of killing the bacteria in dental plaque.
 - The fluoride integrates into the outer surface of the teeth making them more resistant to decay.
 - The fluoride can to some degree remineralize early dental decay.

TOOTHPASTE SELECTION: some popular fluoride toothpaste brands to choose from that are approved by the American Dental Association.



Notes:

- Sensodyne is recommended for more sensitive teeth.
- Tom's states it uses no artificial flavors, colors, or preservatives, for those who want more natural ingredients plus fluoride.

Another toothpaste approved by the American Dental Association.



This one contains **baking soda, hydrogen peroxide, and fluoride**. Based on this strong combination, I recommend it only for adults and that it be used no more than 3-4 times per week. The rest of the time, use a toothpaste without hydrogen peroxide. Your dentist knows your specific dental needs, so consult with them to see which toothpaste or combination of toothpastes they recommend for you.

When brushing with fluoride toothpastes, consider the following recommendations

- When brushing use the minimum amount of toothpaste to get the job done. Your toothpaste will last longer and less of it will go down the drain into our water supply.
- Once done with the brushing, swish the foamy toothpaste around your teeth, so it gets to those in-between areas. Then leave the toothpaste on your teeth for an additional minute or two. This gives the fluoride longer contact with the enamel to get its beneficial anti-cavity effect.
- Then thoroughly rinse with water to avoid ingesting the fluoride and the other chemicals in the toothpaste.
- **When it comes to your young children**, it is important to discuss with your general dentist or pedodontist (a dentist who specializes in treating children) the safe protocol for your child's use of fluoride toothpaste. When children brush with fluoride toothpastes or use dental fluoride rinses, the goal is to gain from their topical application, without the child ingesting the fluoride and other chemicals.
- You are invited to further research this topic online.

Non-fluoride toothpastes

- There are many brands of non-fluoride toothpastes. As of yet, none of these have been recognized as being sufficiently effective in preventing tooth decay to receive the **ADA Seal of Approval**.
- They can be an additional method to brush away dental plaque, but it is **recommended that they not become a total substitution** for your regular use of fluoride toothpaste.
- And it is best to consult with your dentist before going completely off fluoride toothpaste.
- They often describe themselves as “natural” toothpastes, and state that they avoid including many of the chemicals that are included in fluoride toothpastes.
- There are also *claims* that the ingredient charcoal which is added some of these toothpastes can absorb toxins and bacteria on your teeth or in your mouth, similar to how charcoal purifies water. However, there is no charcoal toothpaste with the ADA Seal of Acceptance. A study published in The Journal of The American Dental Association found that there wasn't enough evidence to support its efficacy claims. Also, using charcoal toothpaste might damage the outer layer of enamel because charcoal is abrasive.

Water Fluoridation

- This public health measure began in 1945, when it was discovered that **fluoride salts** such as sodium fluoride and other fluorine-containing compounds had beneficial dental health effects. Most significant was that fluoride incorporated into the enamel of **children's** developing crowns making them more resistant to decay. Public water fluoridation was seen as a cost effective way of delivering fluoride, especially to this sector of society. For this reason, fluoride is often added to municipal water supplies, with research stating a 25% reduction in tooth decay.
- However, once past the age of twelve, the benefits for children's teeth from public water fluoridation appear more limited - After that point, they can probably obtain most of their tooth decay prevention benefits by limiting sweets in their diet, by flossing daily, and by thoroughly brushing their teeth with a fluoride toothpaste twice a day.
- Fluoride's only known health benefit to humans is dental in nature. Its anti-decay protection for children could also be obtained by taking fluoride supplements, and this would not require public water fluoridation. Based on this, there is some controversy linked to public water fluoridation which results in our entire population having low level, but long term exposure to fluoride, whether they wish to be or not. This is a complex topic warranting much more research and open discussion.
- For those who wish to learn more about this topic, there's an article I've written, titled:
- [An Overview of the Controversy Surrounding Water Fluoridation, with alternative Methods presented for improving the Public's Dental Health, by Stan S. Katz - 2019](#)
Available on the website: [Academia.edu](https://www.academia.edu)

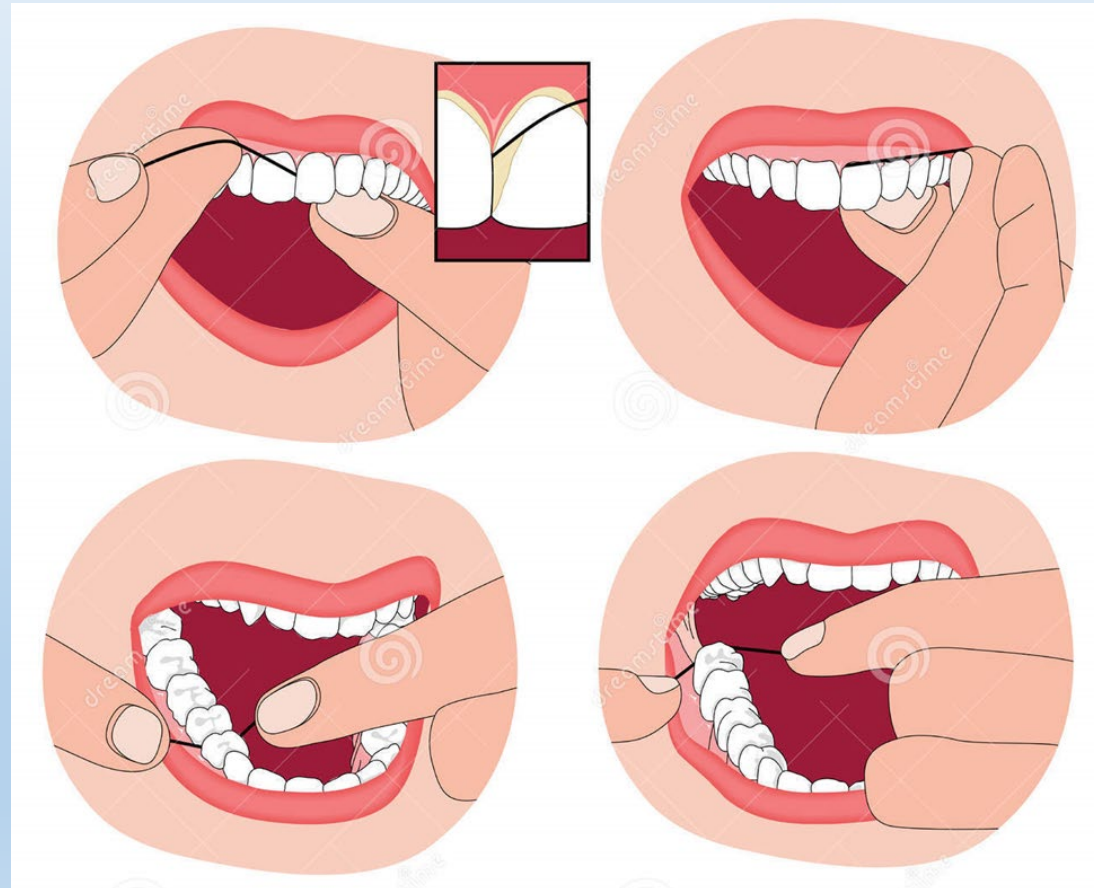
INTERMISSION: A moment to appreciate the beauty of nature, prior to learning about Flossing.



The Art of Flossing

More than just removing food that is stuck between your teeth.

Flossing eliminates sticky **dental bacterial plaque** between teeth. You can use your **fingers to guide the floss** or can use **dental flossing aids** which will be shown in the following slides.

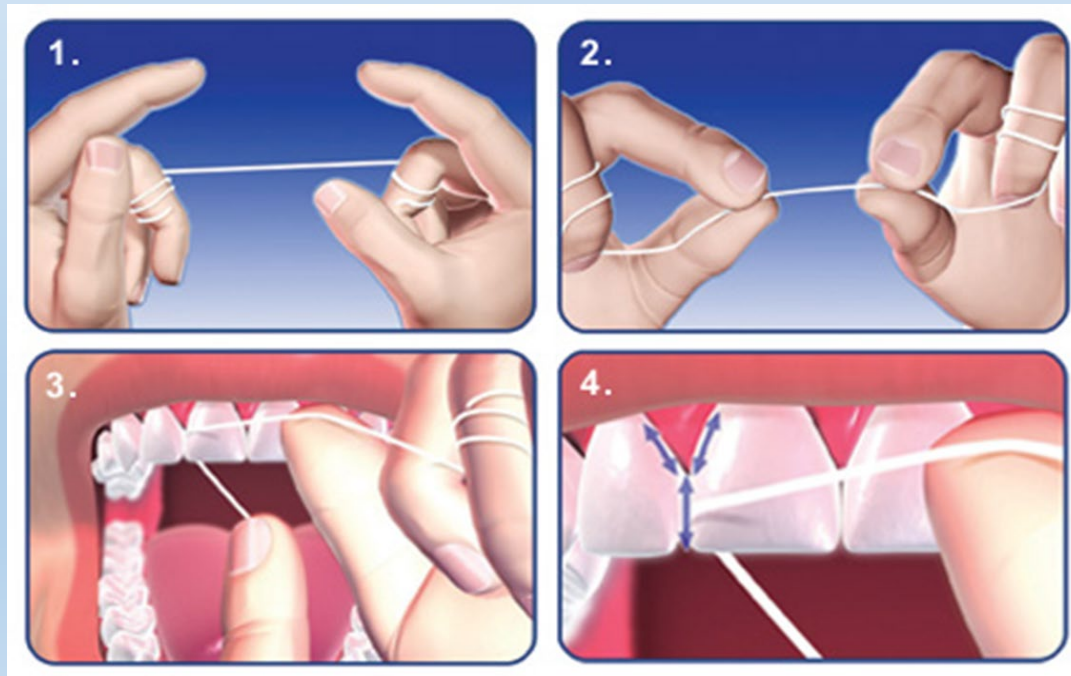


Flossing

- It is recommended you floss daily, though there are those who like to floss more often.
- And if you have specific areas where food often gets lodged between teeth after meals, you might consider carrying floss or a toothpick with you to quickly clean those areas.
- When flossing you can either guide the floss using your fingers of both hands, or if that is challenging, you can use floss aids to accomplish this goal. We will illustrate these options.
- Many individuals find flossing somewhat difficult, especially when trying to reach the teeth at the far back of their mouth. Some find flossing uncomfortable to their gums.
- When there is gum discomfort or bleeding when brushing or flossing, it is often due to incorrect brushing technique, combined with incorrect flossing technique which accidentally traumatizes the gums.
- Once you improve your brushing and flossing techniques, you will likely eliminate gum discomfort and bleeding as your periodontal condition improves.
- The question is often asked whether to brush or floss first? I recommend flossing first to get rid of the plaque and food debris, allowing the toothpaste better access to the side surfaces of the teeth, where they contact one another.

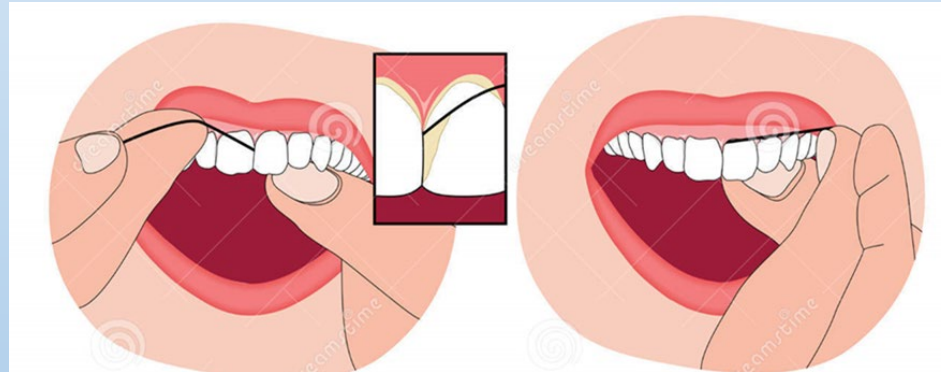
Flossing Techniques

- Begin by cutting off approximately 18 inches of floss. Then gently wrap one end of the floss around the middle finger of one hand, being careful not to wrap it too tightly around the finger, restricting blood circulation.
- Use a combination of your pointer finger and/or thumb of both hands to guide the floss to the various teeth. When flossing your front (anterior) teeth, the length of floss between your fingers can be shorter, because these teeth are more accessible.



Flossing Techniques

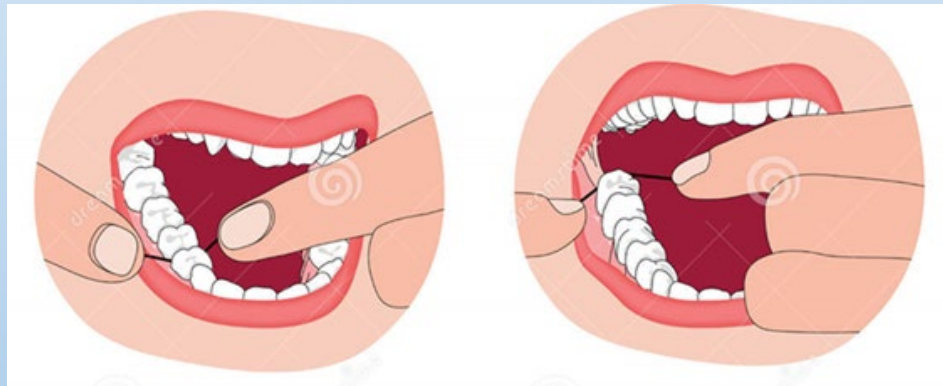
- The goal is to remove the food and the sticky bacterial plaque adhering to the sides of your teeth, where the toothbrush can't reach.
- Gently glide the floss between adjacent tooth contacts to **avoid snapping it** through and causing discomfort. Wrap the floss around **ONLY** one tooth at a time. First gently position it as low as it can comfortably go beneath the gum line surrounding the tooth. **Remember to pull both ends of the floss towards the same tooth**, this avoids accidentally cutting the gum tissue between the teeth.
- Use an **up and down buffing/polishing motion** to clean the entire tooth's curve surface. SIMILAR to polishing or buffing a shoe, starting at slightly below gum line and then cleaning the entire tooth.



- You are encouraged to ask your **Hygienist or Dentist** to observe your flossing technique during your dental checkups, and if required give suggestions to improve your technique. Over time you will become more proficient in the art of flossing.

Flossing your posterior teeth

- You will need to allow additional floss between your fingers to reach those further back teeth. And remember to floss the back side of the very last teeth, where there is no contact with another tooth. That area is often neglected.
- While flossing, as one section of the floss get worn out and frayed, wrap some additional floss gently around your middle finger, which now allows you to use a new fresh section of the floss. It is suggested that at first you floss in front of a mirror to better understand the process.



You are encouraged to ask your [Hygienist or Dentist](#) to observe your flossing technique during your dental checkups. *And if required*, they can give suggestions on how to improve your technique.

Goals of Flossing

- As mentioned earlier, if you haven't been flossing correctly and regularly there might be some bleeding and discomfort when you first begin.
- When you get into the habit of flossing correctly, that bleeding and discomfort will soon likely be eliminated. And be careful of the gum tissue between the teeth. The floss is only putting pressure against tooth surfaces.
- Once you've completed flossing one of the two adjacent teeth, go back and floss the other tooth. *Remember*, the teeth you don't take care of, will become your future problem areas.
- **Important Note:** All of the oral health instructions being given to you today, assumes that you are going to a Dentist regularly as part of your dental care.
- At first flossing will take extra time – However, as you get better at it over time, you will find it can be done more expediently. And it will truly pay off with a Brighter smile, Fresher breathe, a major decrease in tooth decay between the teeth, and in improved periodontal health.
- The benefit of using unwaxed floss is that it will "tell" you when your interproximal surfaces are clean by making a squeaking sound as you clean the tooth's interproximal surfaces.

Various Flossing Aids are Available

Some individuals prefer using them to floss with. They include directions for their use in removing plaque, in a similar fashion as was presented earlier, when using your fingers to guide the floss.



Potential health safety issues connected to the type of Floss you use

- Recently, it was surprising to learn from a Harvard T.H. Chan School of Public Health article <https://www.hsph.harvard.edu/news/hsph-in-the-news/dental-floss-harmful-chemicals/> that certain common dental floss brands contain harmful chemicals.
- Teflon, for instance, may show up in your bloodstream. The most common Teflon floss is Glide Pro-Health floss.
- It is also recommended you avoid floss coated with petroleum.
- It is understood that people don't swallow their floss. But the way floss is used on a daily basis makes it difficult to keep the small amount of chemicals on that floss from coming off the floss and into your mouth.
- I've heard that manufacturers are beginning to take these products off the market.
- A list of current safer floss options is given in the following slide.
- Should you wish to use up the floss you already have, you can stand in front of a sink while flossing and spit out the flavoring and wax while flossing.
- And once done flossing, rinse out your mouth with warm water to get rid of the residual wax and artificial flavoring that remains, rather than ingesting this material.

Guide for Healthy Non-Toxic Floss

Ingredients to Look For

- Silk (Biodegradable)
- Hemp (Biodegradable)
- Beeswax (Biodegradable)
- Coconut oil (Natural, Vegan)
- Candelilla (Natural, Vegan)

Some Non-Toxic Brands

- Dental Lace*
- Radius*
- Public Goods*
- Vomel*
- Boka*

**It is recommended you research these options and ask your Dentist's advice.*

Your Diet and Dental health

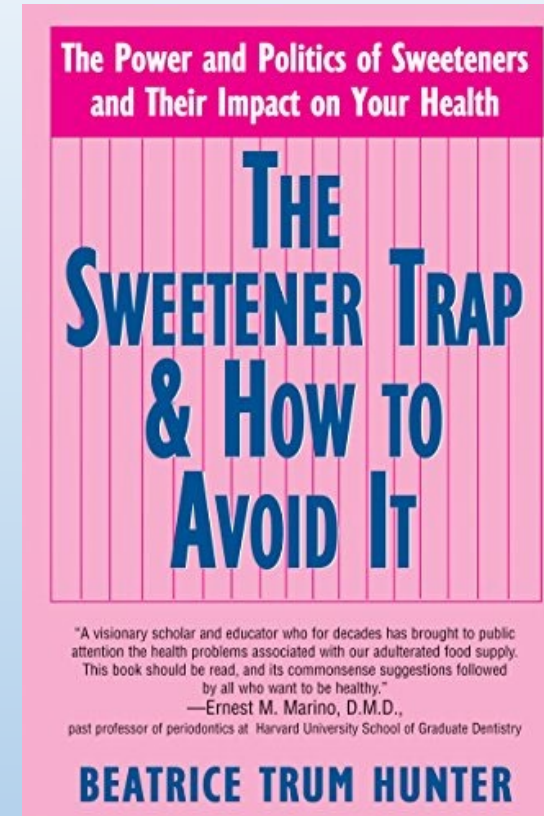
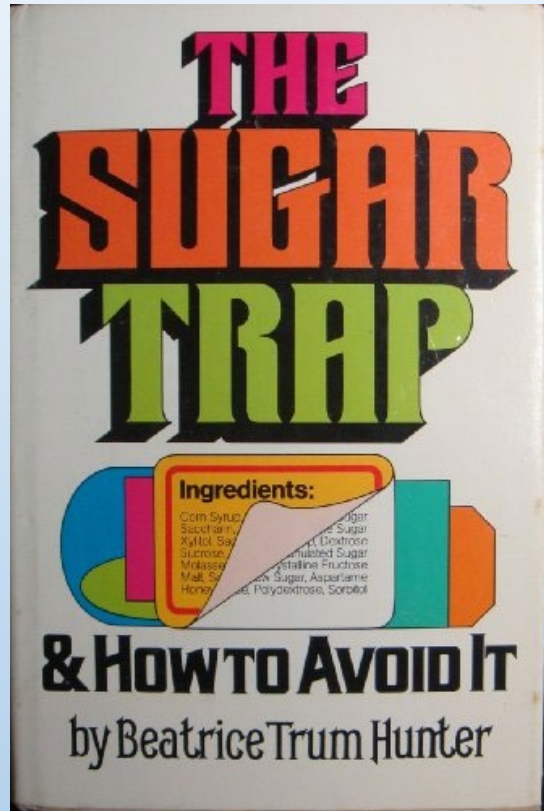
Try to eat a healthy, well-balanced diet for your dental and general health.

- Dental Plaque naturally develops on your teeth, but if removed regularly by brushing and flossing, it doesn't have enough time to cause problems. However, dental plaque develops faster and produces more acid and other periodontal irritants when frequently supplied with sugary foods.
- For the above reason, avoid frequent **sweet treats** such as hard candies, sugary throat lozenges, and other sugary snacks that remain in your mouth for relatively long periods of time.
- Avoid soda or the constant sipping of sweetened coffee or tea. Try to reduce or eliminate acidic/carbonated beverages. Limit sports drinks, cordials, sweet wine, and even fruit juices. It's better to eat whole fruits rather than drinking the juice - You get more fiber and less sugar – A serving of fruit juice can contain up to 10 teaspoons of sugar! Some healthier drinks include unsweetened almond milk or cashew milk, regular milk, or tea (without sweetener).
- And at the end of your meal or snack, remember to rinse your mouth with water for approximately five seconds to more rapidly clear out the remaining food particles, to lessen plaque buildup.
- Approximately 2,400 years ago, the Greek physician, **Hippocrates**, stated, "You should let good food be your best medicine". He is known as the *Father of Modern Western Medicine*.

Sugar's influence on your Health

- Desserts can be delightful, but try to limit the portion size and frequency. It is also healthier to have them at the end of your meal, instead of as a snacks if possible.
- Refined **table sugar (sucrose)** and **high fructose corn syrup** are often hidden in so many foods. Try to avoid foods that include sugar or find healthier ones with less sugar. For example, for breakfast, you could have a crunchy wholegrain cereal topped with low fat, sugar-free yogurt and fresh fruit.
- Try to avoid sticky/chewy sweets that remain in your mouth longer.
- When snacking consider raw veggies, such as carrot sticks and celery which can have a cleansing action for your teeth.
- The amount of refined sugar consumed yearly by the average individual a century ago was likely a tenth of what it is today. This is based on the prevalence of sugar in so many of the items currently on our grocery shelves. By carefully reading the ingredients on food packaging, one can make better choices and greatly reduce sugar intake.
- According to the below **Mayo Clinic** medical article, “Too much sugar of all kinds — not just high-fructose corn syrup — can contribute unwanted calories that are linked to health problems, such as weight gain, type 2 diabetes, metabolic syndrome and high triglyceride levels. All of these boost your risk of heart disease.” [Title of article: *What is high-fructose corn syrup? What are the health concerns?* By Katherine Zeratsky, R.D., L.D.]

Below is a 1982 health classic and its 2008 expanded revision - They reveal the many significant health problems caused by overindulging in sweets.



Honey is healthier than table sugar and has been linked to health benefits like improved heart health, wound healing, and blood antioxidant status. **However**, consuming too much may cause adverse effects due to its high sugar and calorie content. Thus, it's best to use honey to replace other forms of sugar and enjoy it in moderation. It is interesting to note that when using honey, try not to place it into boiling water beverages like tea, because the high heat destroys much of its beneficial qualities. Instead wait for the beverage to cool off to a drinkable temperature and then add the honey to it.

Additional Benefits from Improved Dental Oral Hygiene

- Some individuals have trepidation when it comes to their dental visits and delay dental care based on their uncertainty as to what new dental problems might be found.
- Wouldn't it be more pleasant to know that through effective dental homecare techniques there would be far less dental issues arising - And when issues do arise, they are not as involved or uncomfortable.
- Modern dentistry is usually relatively comfortable, whereas, delaying regular checkups and treatment often results in more problems in the future.
- Discuss with your dentist what techniques they might utilize to assist you to be more receptive to the dental care you need.
- There is an art to comfortably administering anesthetics, first using a topical anesthetic to reduce the discomfort of the injection and then injecting slowly. This can be combined with distraction techniques, such as chatting with the patient while gently tugging or squeezing the cheek during the injection. Headphone music to divert one's attention from the procedure being done. These are just some of the possible solutions.
- In my dental practice, I occasionally utilized hypnosis to relax certain patients so as to relieve their dental anxieties. Many of their concerns were initially brought on by uncomfortable childhood dental experiences, which left emotional challenges which remained into their adult years.

Understanding the bacteria that cause dental disease can assist in combating them.

The mouth is colonized by hundreds of different bacterial species, but only a limited number of these participate in dental decay or periodontal disease.

- **Dental decay** is due to the demineralization of tooth structure by the acid produced by certain bacteria that adhere to the tooth surface in bacterial communities known as dental plaque. The main bacteria involved in tooth decay is **Streptococcus mutans**. Various lactobacilli are also associated with progression of the lesion.
- **Periodontal Disease** can first establish itself when the gums detach from the teeth as a result of an inflammatory response to bacterial plaque. These plaque bacteria produce various compounds (H₂S, NH₃, amines, toxins, enzymes, antigens, etc.) that elicit this inflammatory response that is initially protective. But over time is responsible for the loss of periodontal bone tissue, pocket formation, and the potential loosening and loss of teeth. The progression of Periodontal disease often involves additional varieties of bacteria that thrive even with limited oxygen requirements, such as *Treponema denticola* and *Porphyromonas gingivalis*.
- The goal on a daily basis is to eliminate the above bacteria from your teeth and periodontal areas thru good oral hygiene. But not necessarily to eliminate all the bacteria that are naturally in your mouth. There is a natural *oral microbiome* community of bacteria that serve the function of keeping out other more harmful microbes.

Dental Health and its Potential Impacts on Cardiac health

According to research articles from the [Mayo Clinic](#), [Harvard Medical School](#), and the [American Heart Association](#), the following generalities apply:

- As of yet, there *no certainties* as to the connection between dental health and cardiac health. *However*, many indications give the appearance that there might be a relationship between the two. It is challenging to isolate one's oral hygiene and periodontal health condition from the many other lifestyle habits that impact cardiac health, such as diet, exercise, and other factors.
- The research does state that by improving your periodontal health, you will likely decrease the amount of bacteria being seeded into your **bloodstream** that might otherwise establish themselves on your heart valves and on the interior lining of blood vessels. Dental bacteria have even been found in arthritic joints. Their presence in these locations might well contribute to inflammation causing cardiac and arthritic issues - So even without definitive proof of a dental / cardiac connection, it's a good idea to follow the concept that, "An ounce of improved dental oral hygiene is better than a pound of cardiac health complications."
- This presentation gives many dental and medical suggestions. However, each individual has their own unique health situation based on their dental and medical history & their current therapeutic needs. This requires consulting with your personal health providers, who can guide you in the best direction, because they are most familiar with your health situation. And in this world of easily accessible online information, it can also be helpful to do research to get additional health information from credible internet sources.

DEALING WITH MORE SEVERE PERIODONTAL CONDITIONS

If you have more pronounced periodontal disease, the following information will be helpful. It is estimated that if you added up all of the *inflamed surfaces* lining the periodontal pockets of all the teeth in an individual's mouth who has [significant periodontal disease](#), it could add up to the size of the palm of that person's hand - So you can see how those chronically inflamed areas could continually contribute bacteria spilling out into one's bloodstream.

As mentioned earlier, utilizing a baking soda and peroxide toothpaste brushed into the gum lines, while brushing your teeth, and then leaving the toothpaste in place for an additional minute or two, will further assist in eliminating periodontal bacteria.

However, if there are deeper periodontal pockets that can't fully be reached by the above method, a [water irrigation device](#) can help.

One type of dental irrigation device.
Many versions are available.



Cleaning those hidden periodontal pocket areas that you can't reach with a toothbrush or floss.

A Dental Irrigation Device uses a pulsating stream of water to remove plaque and food debris from between your teeth and from below the gumline. There are a variety of devices on the market. Your dentist can recommend one based on the health of your gum tissue. Oral irrigators can sometimes assist in reducing pocket depth due to periodontitis.

-This device is a supplement to flossing and brushing. However, if you have dexterity limitations or just want to ensure your teeth and gums are the cleanest they can be, it is a great option.

-Fill the dental irrigation device with sufficient **warm water** to irrigate all of your teeth. This might be a third of the device's water tank reservoir. Add a tablespoon of baking soda and a few caps of hydrogen peroxide. Stir the mixture to dissolve the baking soda. Remember, *be careful* to keep the flow pressure to level that is comfortable, just enough to flush out the bacteria and food debris.

Further info about dental irrigation devices

- This regimen might be done once every day or two, depending on the severity of your periodontal issues. This is an anti-bacterial approach to periodontal disease, versus a surgical approach for treating your periodontal condition. **Consult with your dentist.**
- When using an irrigation device, lean over your bathroom sink to allow the excess liquid that builds up in your mouth to empty out into the sink.
- Once done, run warm water thru the device to flush out the remaining baking soda, so it doesn't build up, clogging the machine.
- Another benefit of improving one's periodontal health is that it tends to make your dental office cleaning (**dental prophylaxis**) a more comfortable procedure, including deep cleanings.

Safety Tip Regarding Pizza Palate

- The skin lining of our mouth and throat is relatively delicate and susceptible to burns. **Pizza Palate** describes the trauma caused by eating pizza or other foods right out of the oven, whether covered with boiling cooking oil or by drinking seeping hot beverages. THUS burning the *roof of your mouth*, your throat, tongue, or the inside of your cheeks or lips.
- Perhaps the reason this habit repeats itself is that it is often a couple of days later after the event that the delicate skin lining sheds exposing a burn wound. The lining of our mouth does not have a significant supply of heat sensor nerve endings that respond to boiling hot temperatures, that adaptation was not essential in our evolution. Instead, our drive to immediately relieve our hunger or thirst takes over. These delayed after-effects include redness, swelling, blistering and whitish areas in the mouth until the area heals.
- Once burned, you're advised to stay away from hard or crusty foods so that the area is not irritated and it is suggested you rinse your mouth with salt water after eating to keep the area clean. If pain relief is needed, over-the-counter anesthetics can be used topically.
- An ounce of prevention is worth a pound of cure, so when ultra hot foods or beverages come your way, try the *2 minute warning rule*, for them to cool down a bit, and then dive in.

Mouthwash

- **Mouthwash**, also called “oral rinse” or “mouth rinse,” typically contains antibacterial ingredients to clean your teeth, along with other ingredients that give it a flavor. Some mouthwashes contain **alcohol** as an inactive ingredient, while others are alcohol-free.
- For some people, mouthwash can have unpleasant side effects such as drying the lining of their mouth. These side effects may outweigh their benefits. And there are also concerns over the chemical dyes and flavors in certain brands of mouthwash.
- It is important to note that only certain bacteria in your mouth cause tooth decay, periodontal disease, and bad breath, but many other bacteria are part of what’s called your natural **oral microbiome**. The presence of these more beneficial bacteria can help keep out harmful bacteria and other microorganisms.
- Overuse of mouthwash, whether alcohol-free or containing alcohol, may kill off a high number of bacteria in your mouth, and thereby disrupting your oral microbiome, and for that reason gentler antiseptic mouthwash formulas might be a healthier choice.

Mouthwash

- Bad breath can be the result of poor dental hygiene. Based on this, flossing daily and brushing twice per day can have more proven benefits with fewer possible side effects.
- When recommended by your Dentist, using an anti-bacterial mouthwash can help reduce plaque buildup. You might gargle small amount and let it remain in your mouth for a minute or two, to do its work. Then thoroughly rinse with water to avoid ingesting the mouthwash.
- If you have more pronounced **periodontal disease condition**, you might consider using a blend of mouthwash and water in your dental irrigation device so that you can get this anti-bacterial solution into the periodontal/gum pockets surrounding your teeth to flush out food debris and kill bacteria. Then rinse with water thoroughly.
- Certain mouthwashes can serve the specific needs for certain patients - You are advised to consult with your dentist as to how mouthwash might fit into your dental hygiene routine. There is also a great deal of online information available.
- Please note, bad breath can also be a symptom of other underlying **health issues**, so you might consult with your physician.

As part of Preventative Dental Oral Health it is important to find ways to manage STRESS in our Lives.

- In our sometimes challenging world, it is not uncommon to have periods of time when we find ourselves **clenching or grinding (bruxing)** our teeth at night. We might even catch ourselves doing so during the daytime. These **parafunctional** habits can cause extra wear on our teeth, sometimes even fracturing teeth and dental restorations, as well as impacting periodontal health.
- These habits can also cause **discomfort** linked to the overuse of the *sliding hinge joint* that connects our lower jaw (mandible) to our skull. That joint is called **the temporomandibular joint (TMJ)**. It is unique that the TMJ are the only parts of the body that requires two joints (one on each side of the jaw) to work together in harmony when they perform their many functions, such as: talking, eating, smiling, breathing, etc. There is a cartilage disc within the TMJ that acts like a buffer/cushion between the hinging mandible and the skull. Clenching and bruxing can cause this disc to be pushed out of its comfortable position and cause the adjacent muscles and ligaments to become strained.
- When experiencing TMJ symptoms, avoid hard and chewy foods. Instead have a softer diet until the discomfort goes away. It can be more comfortable to chew your food on both sides of your mouth at the same time, to better stabilize both temporomandibular joints.

Symptoms of TMJ problems

- Pain or tenderness of your jaw
- Difficulty chewing or pain while chewing
- Pain in one or both of the temporomandibular joints
- Headaches, Facial, and sometimes Neck pain
- Clicking sounds and locking of the jaw joint, making it difficult and uncomfortable to open or close your mouth
- Discomfort around your ear
- Ringing sounds in your ears
- Note: Trauma from an accident can also cause TMJ discomfort

Factors for dealing with TMJ symptoms



Dentists can help treat their patients who have been diagnosed with **temporomandibular joint disorder**. A dentist understands how the jaw functions and can therefore offer patients who are suffering from TMJ pain a few different types of treatment options.

It is important to mention that poor posture can also be a factor in TMJ symptoms. For example, holding your head forward while looking at a computer all day strains the muscles of your face and neck. One can reposition their desk seating and computer screen to be more comfortable. Other factors that may make TMJ symptoms worse include poor diet and lack of sleep.

Your Dentist may prescribe at-home remedies to help alleviate your TMJ. Home remedies may include: applying an ice pack or moist heat to the jaw. taking nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen (Advil) and aspirin, antidepressants, or muscle relaxants.

Can TMJ go away on its own?

- For most people, discomfort from TMJ disorders will eventually go away on its own. Self-care practices are often effective in easing symptoms. If treatment is needed, it should be based on a reasonable diagnosis, be conservative, and be customized to your special needs.
- Common treatments include medications, **mouthguards** (shown in next slide), and there are physical therapists who specialize in therapeutic TMJ healing techniques.
- Incorporating stress reduction practices into our lives can lessen the occurrence of clenching and bruxing. Yoga, relaxing meditation, listening to stress reduction audio recordings, watching calming or humorous videos, or listening to relaxing music can all have a positive effect.
- Gently massaging the chewing muscles on both sides of your face can be soothing. You might combine this with some gently massaging of the back of your neck, where folks often hold some of their tension.

Mouthguards

- If you think you might be clenching or bruxing your teeth at night, talk with your dentist or medical provider to explore possible causes and treatment options. Mouthguards are protective devices that cover the teeth to shield against potential damage.
- To more accurately fabricate a well-fitting upper teeth mouthguard as shown below, it requires taking an impression of your upper and lower teeth.



- The above almost invisible, preventative dental appliance is generally worn at night, but on occasion, during the day, if one finds themselves clenching or grinding. The goal is for this to be a temporary solution which serves its purpose for a couple of weeks or longer, and during that time, it is hoped that the causes for the clenching and grinding might be discovered and be dealt with...In the future, one might find that on occasion they again temporarily require the mouthguard. This might be seen as an indicator that there is a need to again find ways to reach a more calm state.

Natural holistic health approaches to resolve TMJ symptoms

- Discover the triggers that get you stressed *and* then find healthier ways of dealing with them.
- During the last couple of hours of the evening, try to avoid unsettling activities, such as watching intense action movies that increase your tension. Resist watching the news or reading about world events that might be disturbing.
- Try to reserve those last hours of the day to uplifting, relaxing, positive oriented activities, an amusing book or relaxing music, and perhaps a refreshing evening stroll around the neighborhood.
- All the above combine to result in a healthier you, including regular exercise, sufficient sleep, and a healthy diet avoiding junk food. Consider avoiding or limiting smoking and practice reasonable alcohol consumption.
- *All of these above natural holistic health approaches can help you avoid more involved medical and dental interventions.*
- Remember, you deserve to take good care of yourself.

Summary



This Presentation has covered:

- How good dental/oral health is also beneficial for your general medical well-being, potentially including your cardiac health.
- Improved techniques for brushing and flossing.
- If there is advanced periodontal/gum disease, improved home-care techniques can potentially help, including the use of a dental irrigation device.
- How our food diet and sweet snacking influences our dental and general medical health.
- Suggestions on how to reduce and manage stress, as part of maintaining our dental and overall health.

It's been a pleasure presenting this information to you today!

If you think it might be helpful to others, feel free to share it.

Warm regards,

Stan

Stan S. Katz DDS retired



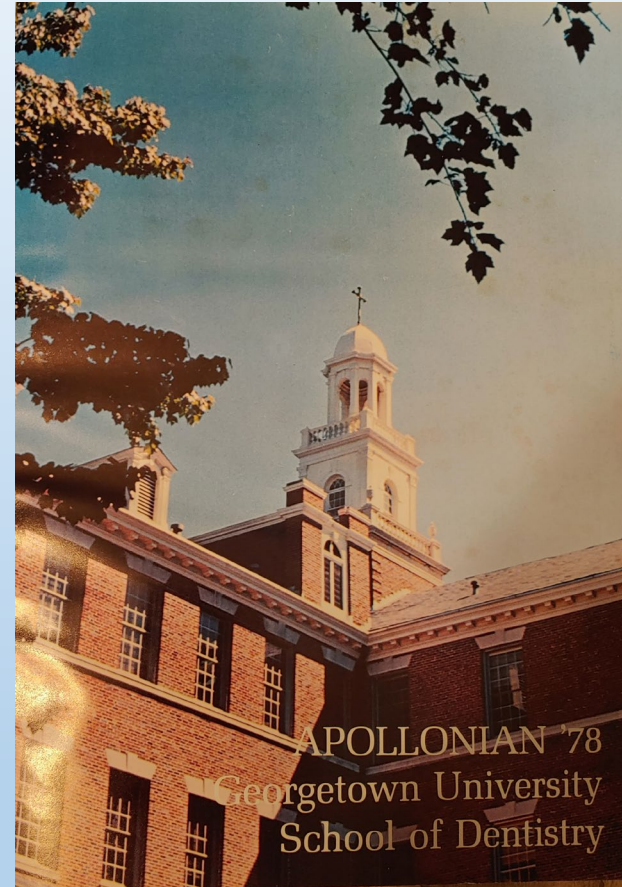
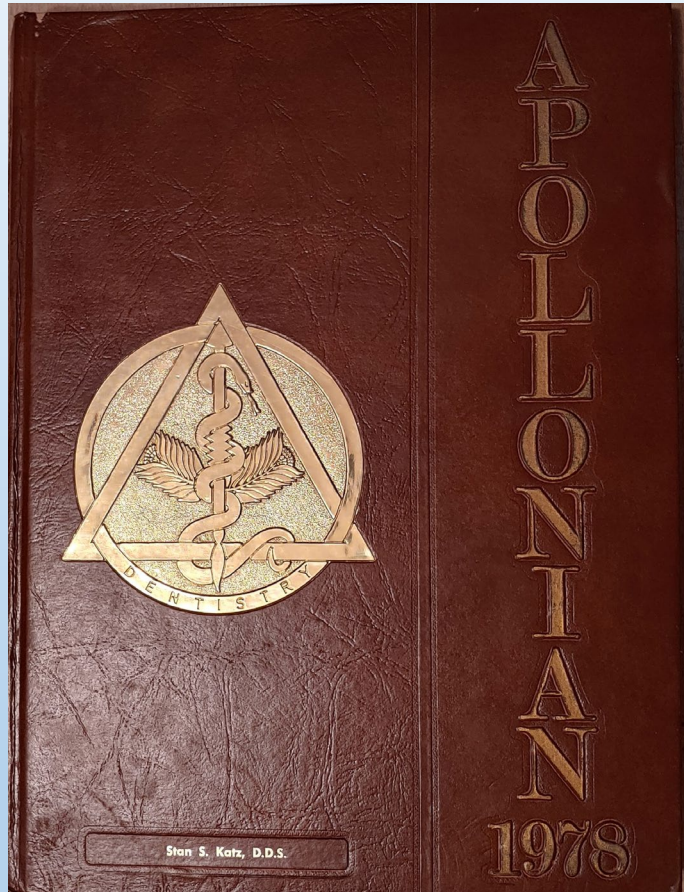
Brooklyn College - Bachelor of Science Degree in Chemistry – 1973

Georgetown University School of Dentistry – Class of 1978

Alliant International University - California Teaching Degree – 1989

After graduating from *Georgetown University School of Dentistry* Stan established a Family Dental Practice in beautiful Upstate New York in the city of Rochester; was a Member of the Board of the **Monroe County Dental Society**, became President of a continuing education study group of 40 local dentists, joined the service organization, **Rotary**, and was a member of **Alpha Omega Dental Society**, a Jewish Dental Fraternity that provides opportunities to attain professional excellence and promotes access to oral health care for all.

This Presentation is Dedicated to Georgetown University School of Dentistry and its talented administrators, instructors, and support staff.



Georgetown Dental School - 1978 Graduation Yearbook Cover & title page
The Publication is named after **Apollonia**, the Patron Saint of Dentistry.

In addition to his involvement with Dental Health, Stan has a passion for understanding International relations and History.

- Member of the **San Diego World Affairs Council (SDWAC)**, a non-profit, non-partisan, educational organization which gives fascinating and relevant presentations on national & international topics. Here is their website: <https://sdwac.org/>
- Some of the above topics are incorporated into high school learning opportunities thru exciting school competitions called: **Academic World Quest**.
- SDWAC is a local chapter of the **World Affairs Councils of America** with approximately 90 locations across the US - You're invited to visit their website: <https://www.worldaffairscouncils.org/>

*For those who enjoy History,
Stan's written the following books:*

The Emperor and the Spy

- This historical novel reveals the thrilling adventures of a brilliant US Army Intelligence Agent, **Colonel Sidney Mashbir** (1891-1973).
- Mashbir's career in espionage began in the American Southwest during the early 1900's, maintaining stability along the U.S. Mexico border during the Mexican Revolution.
- During the 1920's, he moved to Japan and became a Japanese linguist who befriended some of the most influential Japanese leaders. *And together*, they heroically strove to maintain goodwill between their nations, delaying and almost preventing **WWII** in the Pacific - But that conflict could not be avoided.
- Mashbir then became **General MacArthur's** top strategy advisor in winning that conflict. And once it was over, he helped guide the US and Japan to once again become strong allies.
- Mashbir often worked with his Navy buddy, the *future* Rear Admiral and Deputy Chief of Naval Intelligence, Ellis Zacharias (1890 – 1961). These good friends were early pioneers in the creation of the **CIA**.
- To learn more, you're invited to visit: TheEmperorAndTheSpy.com

HISTORICAL NOVEL

"A penetrating spy story!"
—Kirkus Reviews
highlighted as one of their top selections.

It is said, Great Artists are often not recognized during their life-times...The same may well apply to the Art of International Diplomacy and Espionage.

Welcome to the intriguing world of a resourceful American Spy who spent the 1920s and 1930s in a secret alliance with the Japanese Royal Family and other top leaders of Japan. Heroically, they delayed and attempted to prevent war between their nations. This thrilling adventure presents a real-life James Bond, Colonel Sidney Mashbir (1891-1973), who pioneered the beginning of the CIA.

His fascinating career began at the start of the 1900s, in the still untamed American Southwest, and continued through two world wars. This story is based on, and inspired by Mashbir's never-before-revealed intimate letters, secret official documents, and photographs, combined with interviews and extensive research.

Despite their best efforts, WWII could not be stopped. This required Colonel Mashbir to then use his skills to defeat Japan, a nation and people whom he had so befriended. He served as one of General Douglas MacArthur's closest advisers. He also headed ATIS, a still relatively unknown top secret intelligence organization, operating out of Australia, which strategically shortened the war in the Pacific, saving countless lives.

"The Emperor and the Spy . . . I couldn't put it down."
—Hilliard Harper, Retired Naval Reserve Commander
and former Writer for the Los Angeles Times.

"This is the first novel to reveal Mashbir's leadership role during this dramatic time in history."



THE EMPEROR AND THE SPY BY STAN S. KATZ



THE EMPEROR AND THE SPY

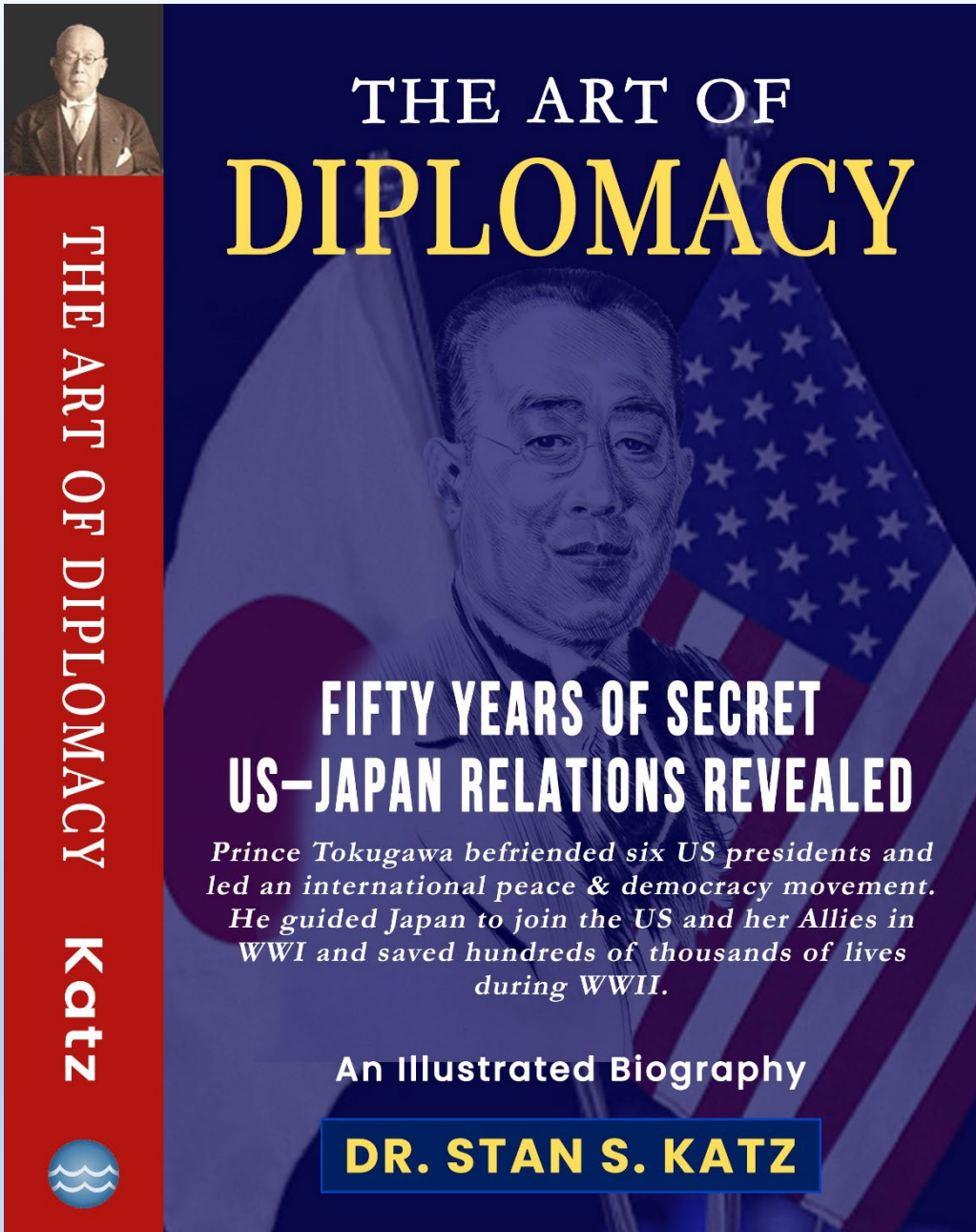
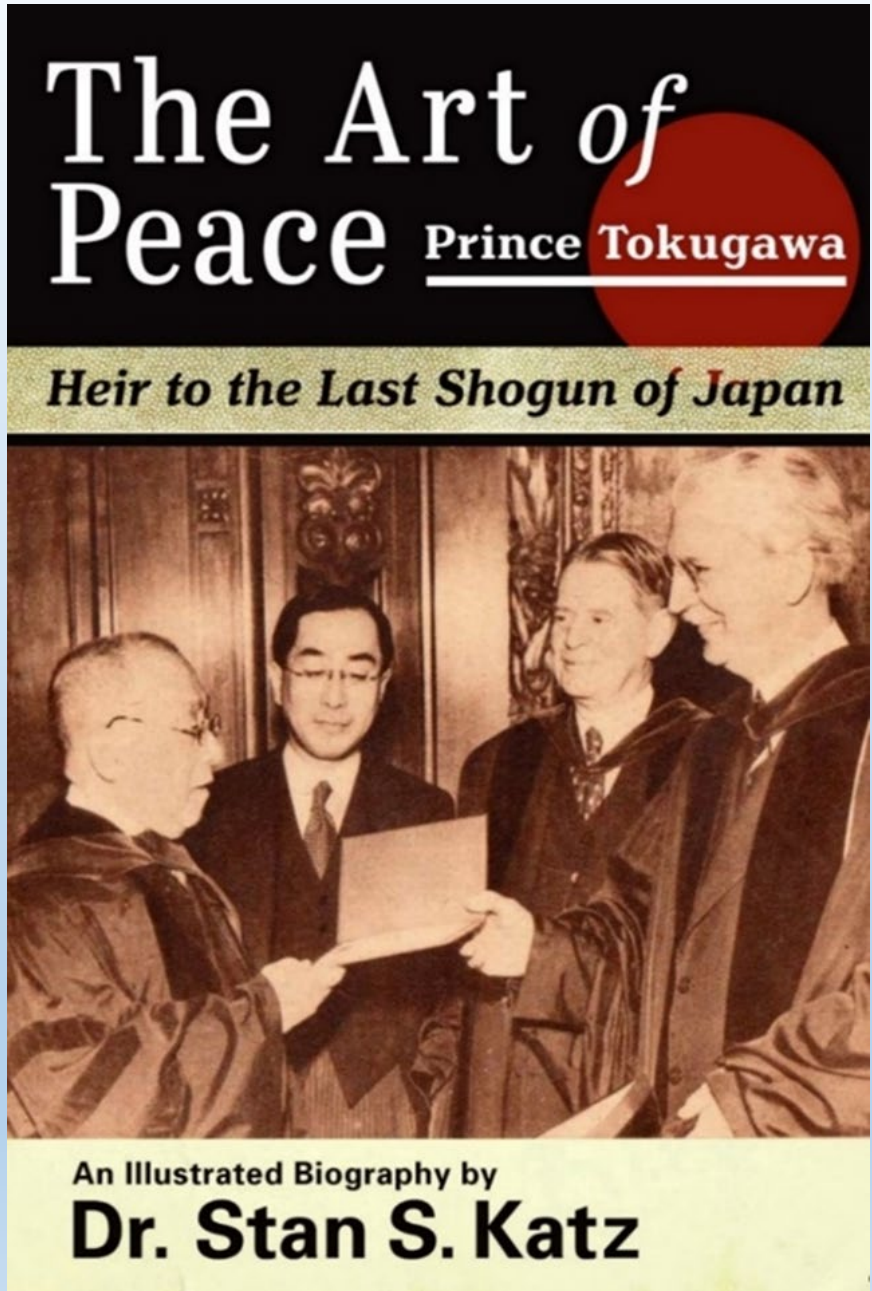
Unsung American hero Colonel Mashbir served as General MacArthur's top strategist in winning WWII in the Pacific and then guided the U.S. & Japan to once again become strong allies.

STAN S. KATZ

"Novelist brings spy out of the shadows."
—San Diego Union-Tribune

An Alliance between East and West

- Colonel Mashbir's most influential Japanese ally and friend was **Prince Iyesato Tokugawa** - aka Tokugawa Iesato (1863-1940). Tokugawa was Japan's leading advocate of peace and democracy. For 30 years, he served as President of Japan's upper house of congress, the *House of Peers*. Little had been written about this great humanitarian and he deserved an illustrated biography highlighting his fascinating life and inspiring accomplishments.
- Tokugawa was the **Heir to the last powerful ruling Shogun**. However, when that 265 year old dynasty ended in 1868, he instead took to the world stage as an international statesman and humanitarian.
- During the 1920s, Prince Tokugawa incorporated **Lincoln Essay Contests** into all Japanese public schools and colleges, with recognition given to the students whose essays best described the humanitarian values of Lincoln.
- Mashbir described Tokugawa as *the true hidden power behind the Japanese Imperial Throne*. And that he was so important, *that it was only after Tokugawa's passing in 1940, that militants were able to push Japan towards war with the Allies*.



The Art of Peace & The Art of Diplomacy

- The Art of Peace book cover shown above displays a 1934 photo of Tokugawa receiving an **Honorary Doctor of Law Degree** from the **President of the University of Southern California** for Tokugawa's lifelong philanthropic contributions and for his promotion of respectful East / West relations and international student exchange programs.
- Prince Tokugawa's son is also in the above photo, as is the President of USC's Board of Directors. The following year, USC bestowed the same honorary award to **President FDR**.
- As President of the **Red Cross Society of Japan** in 1934, Tokugawa served as the Chairman of the **International Red Cross Conference** held in Japan. Under his leadership that conference helped establish the demilitarized "**safe zones**" in war-torn China. During the years prior to and during WWII, these "safe zones" provided refuge for tens of thousands of **European Jews** fleeing the Holocaust and also safety for hundreds of thousands of **Chinese civilians**.
- To establish an ongoing **legacy for U.S. Japan friendship**, Prince Tokugawa guided the **1912** Japanese gifting of cherry blossom trees to the U.S., into becoming our **National Cherry Blossom Festival** in **1935**. This delightful yearly celebration continues to this day in Washington, D.C., and is one of our nation's largest and most popular international goodwill events.
- *A portion of book sales from the novel and biographies will go to:*
- *American Veterans' organizations in honor of Colonel Mashbir.*
- *Social service organizations Colonel Mashbir and Prince Tokugawa were active in, such as Rotary International.*