Keystone explorer

PENNSYLVANIA ACADEMY of GENERAL DENTISTRY

FALL 2017

The Official Publication of the Pennsylvania Academy of General Dentistry

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Emergency Preparedness

With the recent extreme weather events in Texas, Florida and Puerto Rico on my mind, I thought about what I would do in case of an emergency. First, I was glad to know that my sister had everything under control in Miami, and she and my mother weathered the storm there with some minor gardening issues.

What would I do if a storm hit my office or home? Am I prepared for this? I have office interruption insurance, but I don't know if the small print would allow me to cover the expenses I would incur. I know that my 60-day waiting period is way too long, but the insurance costs way too much if I shorten the waiting period. (Did I say that I hate spending money on more insurance?) I am not sure that I could financially weather a major stoppage in my practice like some in the aforementioned areas must do. In addition to their own inability to provide care due to the damage, I suspect their patients are not very concerned about the cosmetic or optional dentistry they might have previously agreed to, and their production will be negatively affected by the local economy hit for the short term and maybe even for the long term. Do you have an emergency preparedness plan for your office?

What can we do to help those dentists affected by these terrible storms? Red Cross and other charitable agencies can help spread food, lodging and health care for the short run, but what will the dentists do with such major obstacles in their practices? Organized dentistry has focused on helping patients who do not have resources to obtain dental care, but do we as a profession have any way to develop resources that can help dentists recover from these events? Are you donating anything to help dentists you know? Do you know of any programs or ways we can help? Let's get this conversation going on our PAGD website.

David A. Tecosky

David A. Tecosky, DMD, MAGD
Editor, PAGD *Keystone Explorer*

Pennsylvania Academy of General Dentistry Board of Directors

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www.pagd.org

Time Flies

By Andrew T. Stewart, DMD, MAGD, ABGD

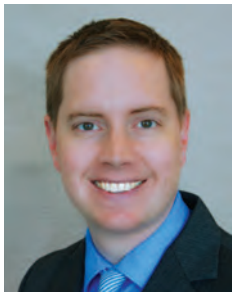
In early fall, as the days get cooler and shorter, we find ourselves wondering, "Where did the time go?" Unfortunately, we find ourselves asking that very same question about our careers and, indeed, our lives. All too often we plan to get to something later because there is plenty of time. Later, we see the error in that thought.

Organized dentistry, in general, and PAGD, in particular, are no different. We need your help. Whether you are in the dawn or dusk of your career, we want you to get involved. Don't fall into the "stander-by" effect. Don't assume that someone else will take care of it for you.

Our charge to protect our patients is constantly being challenged—now more than ever. Attend the State Board of Dentistry meetings. Contact PAGD's executive director Steve Neidlinger at steve@pennagd.org to see what you can do to help. Your commitment could be as short as a couple of weeks. Don't wait until you have spare time. Nobody has spare time, and it will slip away from you if you don't command it.

From the Mouths of Babes

By Steve Neidlinger, CAE



The conversation about serving children is becoming more prevalent among PAGD members. Both PEAK programs in the fall feature world-renowned speakers on the subject of pediatric dentistry, as the Pennsylvania General Assembly and State Board of Dentistry consider access-to-care issues for this vulnerable population.

One PAGD member operates under the theory that if you are going to welcome pediatric patients, you might as well do so with gusto. Four times per year, PAGD board member Dr. Lorena Cockley of East Berlin schedules children under the age of 8 from open to close. In addition, the entire office staff dresses in costume and decorates the entire building in theme. August's theme: a fire house.

The office staff wore firefighter gear and hung streamers from the ceiling. Dr. Cockley broke out her old EMT uniform. A friendly Dalmatian that resembled consulting orthodontist Dr. Jason Shoe peered over exam rooms. And a local entertainer made balloon animals and painted faces.

According to Dr. Cockley, Kids Days have truly taken a life of their own. Some of the other themes include pirates and princesses, Dr. Seuss, cowboys, farming, under the sea, beach day, and football. Children receive an invitation announcing the theme and inviting them to dress in costume if they like. There is no age minimum. Patients under 3 get a "happy visit," which include a quick visual exam and a talk with parents about home hygiene. These happy visits help assure greater cooperation for future visits.

Parents rave nearly as much as their kids. Dr. Cockley hears stories about children begging to come to the dentist on their free days, and playing dentist at home. Her favorite story is from a mother who wanted to schedule her children, but had not gotten around to it. But as they passed one day in the car, her children screamed that they wanted to stop for an exam, and had a meltdown when informed that they didn't have an appointment that day. They had an appointment for the next Kids Day.

PAGD congratulates Dr. Cockley for taking what could be a difficult experience for a child and turning it into a fun event that has children looking forward to their next six-month checkup.

Do your office staff and dental team go above and beyond what is expected for the people you serve? Contact Steve Neidlinger at steve@pennagd.org or 717-737-4682. We would love to feature your good work in the ***Keystone Explorer****!*

An Overview of Forensic Ondontology

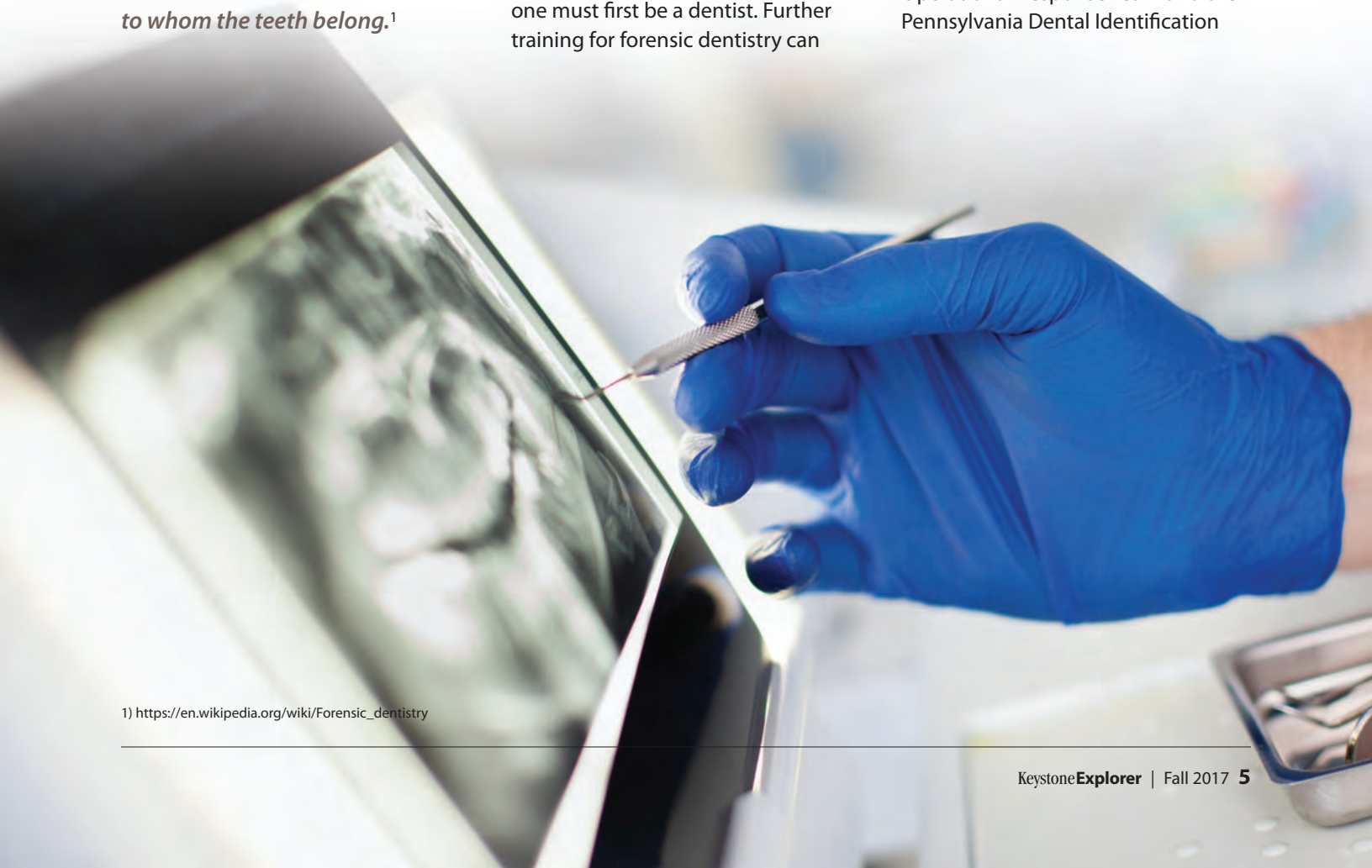
By Andrew T. Stewart, DMD, MAGD, ABGD

Forensic odontology is the area of forensic science that deals with the teeth, including but not limited to the supporting and surrounding structures and the marks left by teeth. It is also known as forensic dentistry. As Wikipedia defines it:

Forensic dentistry is the proper handling, examination and evaluation of dental evidence, which will be then presented in the interest of justice. The evidence that may be derived from teeth is the age (in children) and identification of the person to whom the teeth belong.[1]

There are two main purposes for forensic odontology: justice and body identification. The first deals with identifying people involved in such crimes as battery, assault, rape, murder, insurance fraud and others. The second deals with discovering or confirming the identity of a corpse. This is useful when the body's condition is so poor that facial recognition and other common modalities are of little or no value. Examples of such instances would be extreme fire, prolonged immersion in water or high velocity impact.

Of course, to be a forensic dentist, one must first be a dentist. Further training for forensic dentistry can involve formal training in programs such as those offered at the Armed Forces Institute of Pathology and the University of Texas Health Sciences Center at San Antonio. There is also a plethora of continuing education courses available. Experience can be gained by affiliating with the local coroner or medical examiner, law enforcement and attorneys. Organizations such as the American Academy of Forensic Sciences and the American Society of Forensic Odontology are excellent resources of information and training. Teams such as the Disaster Mortuary Operational Response Team and the Pennsylvania Dental Identification



1) https://en.wikipedia.org/wiki/Forensic_dentistry

Team are groups where experience and training can be found, as well as applying the skills learned therein. As in all aspects of dentistry, it is important to know one's limits, and to seek assistance and guidance accordingly.

Many of the "tools of the craft" are derived from dentistry. Postmortem examinations employ tools familiar to any dentist: toothbrush, mirror, explorer, charting, radiography (sometimes portable, i.e. Nomad), photography, impressions, etc. Less commonly used by the general dentist would be tools for resecting jaws, such as large scalpels, T-handled chisels, Stryker saws and even pruning shears. Bitemark cases might use alternative light-source photography or serial photography (photographs of the bitemark over several days as the mark changes during healing), fingerprint kit (to help read and record the mark), and DNA collection kits. There are a multitude of texts dedicated to several aspects of forensic dentistry, as well as what seems like an endless supply of charts for subjects like age, race and sex determination.

There are computer programs that are used to narrow a search for the forensic dentist. In the instance of a mass fatality, the program WinID3 is a sorting program based on restored/not restored surfaces of teeth (discussed later), which potentially narrows a search from thousands to a few. These few are then reviewed by the dentist. The dentist makes comparisons of antemortem and postmortem radiographs, photographs, and charting to identify the victims. A powerful tool for connecting missing persons reports with unidentified bodies is the dental section in the National Crime Information Center. This national system is managed by the FBI. An example of the use of this system would be, for instance, a missing person report in Oregon has dental information similar to an unidentified body found in Pennsylvania ten years later. This would generate a report at the State Police office. They would then have their forensic dentist compare the records. This system includes the National Dental Image Repository. This stores photographs, radiographs and any documents associated with the victim. It essentially acts as a national digital file cabinet. With proper clearance, it can be accessed from any computer, and the records are instantly available; therefore, hard copies don't have to be requested and sent via mail or courier.

The importance of dentistry in forensics should not be underestimated. While there are many ways to identify a person forensically, dentistry brings to the table information that no other science can. Currently, DNA cannot estimate a person's age. Odontology is much faster and less expensive than DNA. Fingerprints cannot survive decomposition or fire as well as teeth and jaws can. The position and severity of a bitemark can give clues to the position/situation and intensity of an assault. The restorations in the teeth are unique, custom-made prostheses. Simply the binary code of whether a surface of a tooth is filled or not builds a dental combination code. Taking the 32 teeth, each having five exposed surfaces (MODBL), and recording if each surface is filled or not, generates a code of 532 combinations. That is over 23 sextillion combinations—more than 3 trillion times the number of people on the planet. Now, don't get too excited. The usefulness of that number falls drastically when we consider how many people have no fillings at all, no teeth at all, and no complete antemortem dental records. Subtleties like sinus anatomy, trabecular pattern, dental cribriform plate shape, pulpal morphology and amalgam tattoos are familiar and useful patterns to dentists. Odontology can show a progression through time that cannot be determined via fingerprint or DNA.

Forensics is a very popular topic in our society. Dental is only one section of an important team that brings criminals to justice and brings closure to families. As general dentists, the most important contribution we can make is to keep excellent records. Postmortem dental information is useless without accurate and complete antemortem information.

For more information of this topic, visit ASFO.org or AAFS.org.

Forensic Dentistry: An Odontologist's Job Description

By John B. Nase, DDS, FAGD, FICD

Dentists with specialized training in forensic odontology serve the greater good of society by providing expertise in several areas of justice and health and human services in the United States and worldwide. This article will outline many of the facets of modern forensic odontology.

Identification of the Dead

Identification of individuals through dental comparison is by far the most utilized task of the forensic odontologist (FO). Modern society imposes a distinct moral and ethical responsibility of government to positively identify its deceased. In Pennsylvania, this responsibility is defined by Section 1237 of the County Code, which creates the vehicle for such identifications through coroner's investigations at the county level (some large local municipalities, such as the City of Philadelphia, supersede the county resources by adding a local medical examiner's office).

Odontology is employed in a number of situations. Individuals with limited contact of others and those whose demise is nefarious are often not recovered until weeks or months after death. The ensuing tissue decomposition in these cases may make other methods of identification, such as fingerprints or facial recognition, difficult. Decedents who are burned may also not be recognizable and often have no remaining body identification, such as tattoos or fingerprints. Even bodies found in water have issues with recognition. Some unfortunate cases have no "presumed" identity, due to the lack of a wallet or unreported circumstances. The last resort for ID in these cases is often unidentified persons databases (more to come). Offenders of violent crime sometime attempt to "de-identify" by stripping the victim, and even mutilating the corpse to hinder identity investigation. What murderers often don't realize until after the crime is that it is relatively easy to eliminate fingerprints with fire or a loping shears, but not as easy to remove or alter teeth and jaws. Mass disasters, such as an airplane crash, present several unique issues, including body fragmentation and comingled remains, which lend to the efficiency of identification through dental means.

Forensic dentistry has a long track record of reliable use in body identification. One of the first reported uses was by the Roman Emperor Claudius who sent his mistress, Lollia Paulina, to be beheaded, and then ordered his physician to confirm her death by verifying that the head contained a discolored front tooth.[1] Odontology was first used in U.S. courts in 1849, when an incinerated corpse was identified through fitting the unburned metal partial denture back on to the presumed patient's master fabrication cast, which led to the conviction and execution of a J.W. Webster for the murder.[2]

The characteristics of human teeth lend themselves to reliable use in body identification. Teeth are the most stable and durable structures of the human body. They are difficult to alter after death and are often protected from insult via blunt force and fire by the facial soft tissue. Moreover, the teeth are the body part most often recorded during life. General dentists also add key evidence by crafting unique restorations that are subsequently radiographed. Because restorations are "hand-made," none are exactly alike in either position or form. With the potential of 32 permanent teeth present or missing, and zero to five surfaces per tooth restored, the math works out to about 2.13 trillion unique combinations.[3] That makes dental identification equally as specific and reliable as DNA analysis.

The question that is most often asked in an initial conversation about forensic identification is, "Why not just use DNA analysis for every case?" The answer is simple: time and cost. One of this author's favorite quotes is, "I am faster than the U.S. Postal Service!" A dental comparison literally takes less than five minutes in most cases, whereas comparative DNA analysis can take weeks or months due to processing time and case backlog. There is also a considerable difference between the average FO's case fee versus DNA collection, processing and report costs.

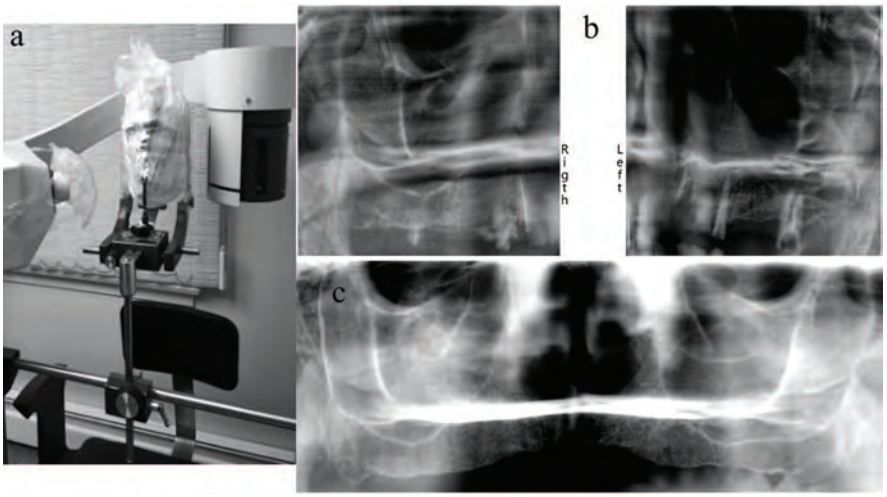


Figure 1 – Bony Sinus Comparison. (a) Panorex set up of decedent skull. (b) Antemortem Panorex taken prior to full mouth extractions. (c) Postmortem Panorex shows several points of concordance in this positive identification of an edentulous decedent.

The first phase of ID by dental is the postmortem examination. A thorough inspection of the teeth is performed. It is common for the FO to perform some degree of soft tissue resection to facilitate the dental findings. A full mouth series of radiographs is exposed and clinical photographs are taken. The last important step in this phase is to chart all findings into an accepted standard format (usually the Universal ADA system).

The second phase involves antemortem data collection. If there is a presumed identity, family are asked about the victim's professional dental care. That dentist is then contacted to forward the living dental record of the presumed victim. The HIPAA Privacy Rule has a provision that allows for the sharing of patient records *without release* to authorities in cases where there is an onus to identify a possibly deceased patient.[4] All information contained in the record should be forwarded, including charting, original (*not* duplicated) radiographs on film or digital media (i.e. a CD or flash stick), and other materials such as intraoral photographs and stone models. It is then up to the FO to interpret this data into the same standard format as used in the postmortem collection.

The final phase is the dental comparison of postmortem to antemortem findings. In this phase, the FO compares tooth by tooth to determine a match with no unexplainable discrepancies. It is important to note that the determination of a positive match is made on a case-by-case basis. There is no minimum number of concordant points to determine surety. One unique characteristic may be used to determine a positive match, if applied appropriately. It is even possible to use comparison of bony structures in cases where teeth are absent (Figure 1). Lastly, there are many pitfalls that may be made by an inexperienced examiner. It is therefore highly recommended that only duly-trained FOs perform a forensic comparison.

The American Board of Forensic Odontology (ABFO) prescribes four dispositions for dental ID:

1. **Positive Identification** – Determination of decedent identity with "reasonable scientific certainty."
2. **Possible Identification** – Used when the data sets are consistent, but not adequate to be conclusive.
3. **Insufficient Evidence** – Quantity and/or quality of evidence is not enough to make any determination.
4. **Exclusion** – Clearly inconsistent data sets which determine that the presumed is NOT the deceased.

So, what is done if a decedent has no presumed identity? It is estimated that 4,400 anonymous deaths occur each year in the U.S., with 1,000 of these remaining unidentified after 12 months.[5] Currently, there are two databases that attempt to identify these difficult cases: NCIC and NamUs.

The National Crime Information Center (NCIC) database, run by the FBI, has traditionally been the exclusive warehouse for this type of information. However, NCIC is a "closed" database and due to the sensitivity of the information it contains, is not viewable by anyone other than law enforcement. Not even FOs are permitted to view it, although it contains dental information and matching.

it is possible to estimate age from the neonatal stage of life up through and including older adults.

As tooth buds develop in utero and during childhood, radiographic analysis of primary and permanent tooth maturity can be used for DAE. This is generally accomplished by a simple comparison of the radiographic findings to a standardized atlas of tooth development (Figure 2). With

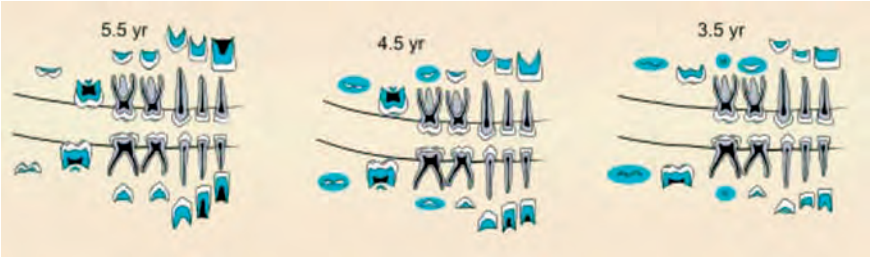


Figure 2 – The London Atlas (a portion shown here) is the latest in graphical charts utilized in dental age assessment.[6]

In recent years, the National Missing and Unidentified Persons System (NamUs) has been developed specifically for the task of matching unidentified persons with missing persons. NamUs features levels of access from completely public (viewable on the open web at www.findthemissing.org and www.identifyus.org) to protected full-access for death professionals, like FOs and medicolegal investigators. A standardized system of dental entry is used to facilitate searches. This author has successfully used NamUs to identify unknown decedents—it works!

Age Estimation

The second most utilized skill of the FO is dental age assessment (DAE). Employing several dental methods,

proper FO training, it is also possible to perform a more detailed and accurate method called staging. In staging, statistical analysis of multiple maturity tooth scores are combined to render a very accurate age assessment, with a 95-percent confidence level within ±3 months in some cases.

Adolescent age estimation primarily focuses on the development of the third molars. Their development has been extensively studied, so that the statistical standards used when assigning age are both gender and ethnicity based. Accuracy of these analyses can be about ±6 months. Adolescent DAE is also extensively used on the living in border states, such as Texas and Arizona, to adjudicate age of majority for questioned immigrants.

Some of the most interesting and difficult cases of DAE are performed on adults. Adult DAE concentrates on post-formational changes in the permanent teeth and relies on several scientific studies that have been performed in past several decades. These methods are not as accurate as in the growing human. The span of age ranges with these techniques are from ± 7 to 15 years at best. With the advent of computer analysis, comparative radiometrics have become easier to perform for these cases.

Bitemark Analysis

A bitemark is defined as any impression left by teeth. They are often a consequence of violent crime and left on a victim's body, but can also be left as a defensive wound on a suspect or also in inanimate objects. The first time bite marks were ever used as evidence in a criminal trial was in the 1954 case *Doyle v. State of Texas*. This involved an assailant who left his bitemark in a lump of cheese at the scene. The biter can be human or animal.

Bitemarks are described as have "class" characteristics and "individual" characteristics. Class characteristics define a patterned injury as resembling a bite. Individual characteristics define the differences between individuals. It is a combination of these types of characteristics that explicitly define the particular pattern left.

Modern comparison between bitemark and potential biter are made using 1:1 digital comparisons of the bitemark to the biter's dentition as captured in a dental

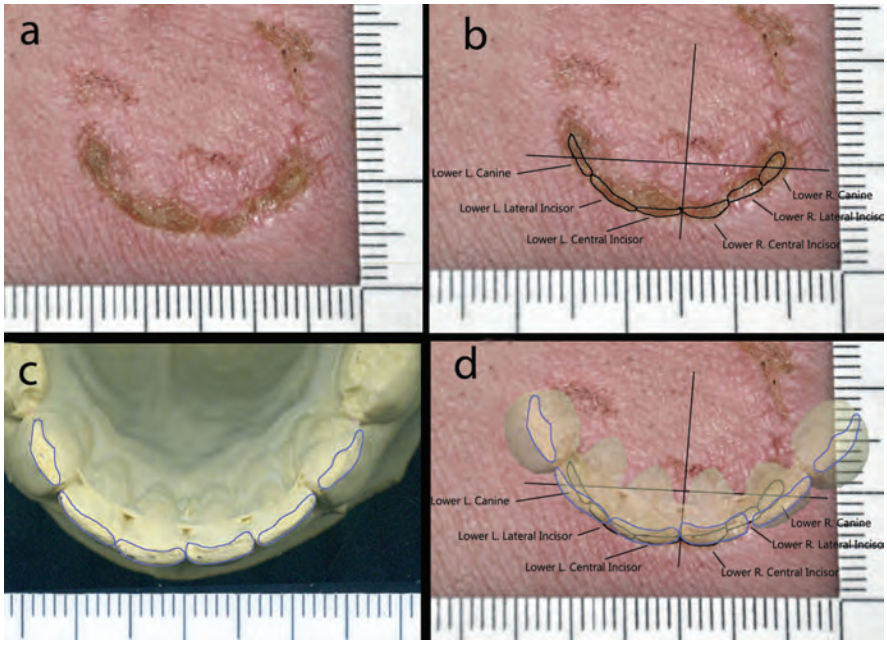


Figure 3 – Bitemark Analysis. (a) High resolution digital photo of the bitemark with ABFO ruler #2 in place. (b) Mechanism analysis outlining the marks made by individual teeth. (c) Digital scan of the suspected biter's plaster cast with same ruler. (d) 1:1 overlay comparison showing exclusion of this suspect.

cast. This can be done through metric analysis (i.e. intercanine width) or using a tracing to "jigsaw" the two images together to see if they match (Figure 3).

The scientific analysis and comparison of human bitemarks is undoubtedly the most controversial topic in forensic odontology today. There have been several cases of criminal convictions based on bitemark evidence, which have since been overturned by other evidence. It follows that the science of bitemark analysis is convoluted at best and should be left to only the most qualified and experienced of FOs to determine validity. The essential problem with bitemark analysis is its canvas—usually human skin—which is neither flat nor static. Most bitemarks should not be analyzed due to being incomplete or degredated. Comparisons of bitemark to biter are best left to the most ideal of situations.

Other Tasks in Odontology

Body identification, dental age estimation and bitemark analysis make up approximately 95 percent of the time spent performing forensic odontology in the average office. The remaining tasks include:

- Working with anthropologists to determine sex, ethnicity and age in a dental profile of both modern and ancient remains.
- Evaluation of oro-facial trauma in victims of abuse.
- Evaluation of dental malpractice and insurance fraud.
- Expert witness testimony.
- Collection of teeth for DNA analysis.

Forensic odontology, although not an ADA-recognized specialty, requires specialized training and unique skills not found elsewhere in dentistry. FOs are steeled as part dentist, part forensic pathologist and part forensic scientist.

Dr. Nase is the primary forensic dental consultant for the City of Philadelphia Medical Examiner's Office and the County of Chester, Pennsylvania. He also serves federally on the Disaster Mortuary Response Team (DMORT) Region III. Dr. Nase is also a member of the American Academy of Forensic Sciences.

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[8] Analysis using Draft Dental Age Assessment Quicksheets ©2006.

Forensic Dental Deployments: 9/11 and Katrina

By Michael Kaner, DMD, JD, FAGD

In the movie "Forrest Gump," the title character proclaims, "Life is like a box of chocolates, you never know what you're gonna get." In many respects, a deployment as a forensic dentist is similar because of the uncertainty of the conditions involved. As a member of DMORT (Disaster Mortuary Operational Response Team) since 2001, I have been deployed twice: for eight days after 9/11 and for two weeks after Hurricane Katrina. Aside from the obvious disruption to a dental practice and ensuring emergency coverage for patients, it requires a great deal of flexibility to deal with the circumstance of the deployment on both professional and personal levels.

On the morning of Sept. 11, 2001, I was in my office treating patients when news of the hijackings and crashes came over the radio. Having taken the required forensic courses and had the extensive background checks, I had been approved to join DMORT in the spring of that year and was on the "call list" for deployment. Within an hour of the first plane crashing into the World Trade Center, I received an email asking if I was available to aid in the identification

Flight 93 crash site, Somerset County, Pennsylvania.

Above and right: DMORT Region 3, dental identification area, Flight 93.

process. I agreed and was told to "sit tight" until they could decide where to send me. The U.S. military has their own identification team that handled the Pentagon crash, and some DMORT personnel were sent to New York, while I was part of the team sent to Somerset County, Pennsylvania, to aid in identifying those on United Flight 93, known as the "hero flight" due to the actions of the passengers in trying to retake the airplane before it could be intentionally crashed into a building in Washington, D.C., with an intended major loss of life. During the struggle between the hijackers and the passengers, the plane was intentionally crashed in a field in western Pennsylvania, impacting the ground at high speed and killing all aboard. Within 24 hours of the crash I was on scene, and a local armory had been transformed into a makeshift morgue with PA State Police providing security. The DMORT team of 100 people is comprised of pathologists, anthropologists, funeral directors, administrative personnel, medicolegal investigators, forensic dentists, dental assistants, hygienists, x-ray technicians, fingerprint specialists, DNA specialists and logistics personnel—all working hand-in-hand for the stated goal.

DMORT Region 3 handles the area of Pennsylvania, Delaware, Virginia, Maryland, West Virginia and the District of Columbia, and works under the aegis of the local coroner for any situation that overwhelms local authorities when the state's governor requests federal assistance.

Once deployed, the dentists were broken up into three teams. The first was the "ante" team, whose job it was to get the patients' dental records and enter them into a computer program known as WINID, the comparison tool. While this involved much detective work, the major impediment was that no aircrafts were allowed to fly in the immediate post-9/11 period. In a pre-digital dental record era, this meant that there was a great delay in acquiring dental records, as they had to be mailed to the identification area, rather than overnighted by FedEx or UPS. The second team was the postmortem team, who would work to collect the dental remains and enter them in the computer program

so that comparisons could be made. In previous plane crashes, dentists would often "walk the field," helping to identify dental remains, pointing them out in crash sites and collecting them. Being that Flight 93 was a crime scene, only Evidence Recovery Team (ERT) agents of the FBI recovered remains, and it was only later, after the scene had been "released" by law enforcement, that the anthropologists and dentists were able to walk the field and search for any potential evidence that might have been overlooked or been outside the primary search area.

The third team was the comparison team using both antemortem records and dental remains recovered onsite to make a positive identification. All positive identifications are confirmed by at least two dentists and often many more, and if even one dentist has doubts, the identification is not confirmed and is reviewed from the beginning. The dental members of the DMORT team worked 12-hour days and would go out to dinner as a team at a local restaurant that gave us a private room, and the administrative officers had secured hotel rooms—no easy task in a rural area with limited numbers of rooms, forcing some others to be housed 30 miles away.

After eight days of helping in the identification process, I returned home to my family and practice. One overlooked part of the deployment process is the need for an understanding spouse/significant other willing to assume extra burdens while you are deployed. I was fortunate that my wife was very understanding and before I left for deployment, I sat down with my sons who were then 6 and 7 years old, and told them in age-appropriate terms that I was going to help so that they wouldn't worry. Once I returned from deployment in Western PA and over the next eight months, I would go up to New York City on the weekends as part of the Dental ID Team of the NYC coroner's office to help in the identification of those killed in the World Trade Center.

Four years later, under very different circumstances, I was deployed again when Hurricane Katrina slammed into the Gulf Coast of the United States in late August 2005, leaving over a thousand dead in Louisiana and Mississippi, as well as massive destruction of infrastructure.

Of the ten DMORT teams, five were deployed to Louisiana and the other five were deployed to Mississippi. Flying out on only the second plane to fly into Gulfport, Mississippi's airport after the storm came ashore, the pilot flew low over the area so we could see the extent of the destruction when the storm surge (a wall of water) ravaged everything within three miles of the coastline. Those roofs that remained were damaged and covered with blue tarps as far as the eye could see. Once on the ground, we were transported to a badly damaged airport hangar that had been converted to a makeshift morgue with ICE (Immigration and Customs Enforcement) providing security. With no running water and the only electricity provided by a generator, housing accommodations were a large air-conditioned tent with 40 cots, and meals were MREs, military meals designed to be eaten in the field. I was fortunate that by the time I arrived ten days in, bathroom facilities had been upgraded from a hole in the ground with an inverted light cover used as a toilet seat to porta potties.

There was a surreal feeling to walk around the enclosed area and see the president's plane, Air Force One, taxi 200 yards away or see Marine One, the president's helicopter, land as it did on several occasions while we were deployed. In 95° heat with humidity levels over 90 percent, it was physically taxing and, within a day of arriving, several people had to be hospitalized for dehydration and heart attacks. In recent years, DMORT has required physical tests to ensure that members are healthy and in shape enough to deal with Spartan conditions, and on a recent deployment to Haiti after the earthquake, conditions were even worse with respect to temperature and humidity.

The biggest difference between the 9/11 deployment and the one after Katrina was the type of records available. After 9/11 we were inundated with antemortem records as family members went to their local dentists and had them sent to us, and even dentists from around the world were available to explain their dental records considering that the numbering system is not universal and different systems are used in different countries. After Katrina, the infrastructure was destroyed and that meant, while we had postmortem records from those bodies recovered, the handicap was a lack of antemortem records from dental offices that had been

destroyed by the storm. To facilitate the identification process, it meant playing detective and gathering antemortem records from other sources. If someone had served in the military or been to prison, we called those sources for records. Many of the people in the Gulf Coast area were employed by casinos that provided dental insurance, and we often called the dental carriers for their patient histories or copies of any records they might have. We learned who were the specialists in the area who might have provided specialty care such as orthodontics or oral surgery.

In one case, a body was recovered with a complex implant-prosthodontic case that had the patient's last name on the inside of the removable appliance, and we called local offices asking if they had a patient by that name. One office did and they were able to forward the records over, and we were able to make a positive identification before their loved ones even reported them missing. If you are thinking that this was a potential HIPAA violation on our part, one major exception to HIPAA is to aid local coroners or medical examiners in mass disaster situation in body identification, and we were provided with the chapter of the regulation if any office had concerns because obviously the patient themselves couldn't sign for the records release. In the midst of our operation, a second hurricane named Rita threatened our base of operations, and we were forced to totally relocate 15 miles to the east in Biloxi, Mississippi, where we were housed in a hotel that had intermittent electricity. Your options for check-in were to take the elevator and take a chance the power might go out and you'd be stuck for hours on end, or walk up 20-plus flights of stairs with luggage. We opted to walk the stairs, lit with candles for illumination.

After 15 days we went back home to our families and practices, appreciative of what we had, having seen those who lost their lives and talked to people who lost nearly all their physical possessions, houses, practices and more.

Two deployments, 9/11 and Katrina, and two very different sets of circumstances.

As a forensic dentist, deployments are the exception and more commonly we are called by law enforcement or coroners to do an identification of an accident victim, a plane crash victim, or human remains that have been located in varying stages of decomposition or that may have been exposed to the elements reducing them to bones and teeth only.

As a forensic dentist you never know what you may encounter and how you must adapt to get the job done. It is rewarding to use the skills and knowledge accumulated in the practice of dentistry to help identify the dead and help bring some sense of closure for the families.

Post Script: Drs. John Nase and Andrew Stewart, both members of the Pennsylvania AGD Executive Board, were deployed with me in the aftermath of Hurricane Katrina in Mississippi and my apologies if neglected to mention any other PAGD members who served on DMORT.

CALL FOR CLINICAL ARTICLES

Keystone Explorer is seeking clinical articles for publication in our quarterly newsletter. Such articles help our readers stay abreast of best practices and new developments in various areas of general dentistry. By publishing clinical articles, the *Keystone Explorer* serves both an informational and educational role for our members.

We welcome the submission of your articles for possible publication in an upcoming issue of the *Keystone Explorer*. Please submit your articles to our editor, Dr. David Tecosky, via email at teco1dmd@gmail.com.

Dynamic Dental Duo Provide Dental Care for Children Across the Globe

Dr. Suzanne Maslo and Jill Eckert pack their bags for dental humanitarian adventure.

Dr. Suzanne Maslo, DDS, and Jill Eckert recently returned from Guatemala and are going to Nepal in October with Global Dental Relief (GDR) to participate in the organization's work providing free dental care to 500 children in need. Volunteers like Dr. Maslo and Eckert make GDR's mission possible. When asked what they most want to share with the world about their experience volunteering, Eckert said, "We want people to know that anyone can do this work; anyone can make a difference in the world."

Dr. Suzanne Maslo and Jill Eckert with a patient in Kenya.

Dr. Suzanne Maslo and Jill Eckert with children in Ladakh, India.

Dr. Maslo and Eckert have taken eight previous trips to provide comprehensive dental care to impoverished children in remote locations around the world, offering their willing hearts, welcoming smiles and skills that are desperately needed by the communities they serve. Three of their most recent dental adventures have been with GDR.

Dr. Maslo and Eckert first met on a their church's dental mission trip to Ghana in 2007. Complete strangers at the time, they came together when Dr. Maslo requested her assistant be someone close to her own height. Ten years later, these women have become the best of friends, sharing many interests including being diehard Pittsburgh Steelers fans, gardening, and sharing their love and commitment to helping children in need.

When asked recently why they came on a dental humanitarian trip with GDR, Eckert responded, "We are called as fellow humans to provide love and care to children. I love being part of a team offering first time dental care to children who may not otherwise receive it." Dr. Maslo's response was simple and succinct, "to serve the underserved."

Global Dental Relief (GDR) is a 501(c)3 charitable organization established in 2001 to provide free dental care and oral health education to impoverished children and families of Nepal, northern India, Cambodia, Kenya and Guatemala. GDR's commitment is to return to these same children every two years to provide continuous care. Dental camps generally include up to six dentists, three hygienists and six to 12 non-medical volunteers who collectively treat upwards of 150 children per day. To learn more about Global Dental Relief, visit www.globaldentalrelief.org.

PAGD member Dr. Suzanne Maslo has been a dentist for 16 years with a focus on public health. She served inner city children of Pittsburgh for 15 years and recently transferred to a rural clinic. She commutes three hours from her home staying in a local B&B during the week to serve the community of Emporium, Pennsylvania. Dr. Maslo is also the director of operations of the U.S. Air Force Reserves, 911th Aeromedical Staging Squadron.

AGD Scientific Session + Convocation 2017

By Steve Neidlinger, CAE

More than 100 PAGD dentists and guests from the Keystone State made the cross-country trip to the AGD 2017 Scientific Session, which was in Las Vegas in July. They set aside the 110° heat to partake in social and educational events, and enjoy the sights of Vegas.

Of particular note at the meeting was the convocation honoring this year's Mastership, Fellowship and Lifelong Learning and Service Recognition (LLSR) award recipients. PAGD congratulates the following members for receiving their award at AGD 2017:

2017 Masters

Joseph Chipriano, DMD, MAGD
Linda Feduska-Kokai, DDS, MAGD
Michael Garver, DMD, MAGD
William Hammerlee, DMD, MAGD
Marc Johnson, DMD, MAGD
Tom Kratzenberg, DMD, MAGD
Scott Pettinato, DMD, MAGD
Robert Scarazzo, DMD, MAGD
Timothy Ungarean, DMD, MAGD

2017 Fellows

Donald Betar, DMD, FAGD
Kyle Dumpert, DMD, FAGD
Dejan Golalic, DDS, FAGD
David Gordley, DDS, FAGD
Nishita Irukulla, DDS, FAGD
Amit Kalavadiya, DMD, FAGD
Bruce Katz, DDS, FAGD
Everest Lam, DMD, FAGD
Eric Paster, DMD, FAGD
Jason Petkevis, DMD, FAGD
Ryan Rupert, DMD, FAGD
Patricia Sansaricq, DMD, FAGD
Thomas Sardina, DMD, FAGD
Hamida Shirazy, DMD, FAGD
Jaclyn Wertheimer, DDS, FAGD

2017 LLSR

Martin Schroeder, DDS, MAGD, LLSR

From left to right: Dr. Tim Ungarean, Dr. Bill Hammerlee, Dr. Tom Sardina, Dr. Dejan Golalic, Dr. Michael Garver, Dr. Kyle Dumpert, Dr. Scott Pettinato, Dr. Martin Schroeder, Dr. Tom Kratzenberg, and Dr. Don Milner.

Dr. Scott Pettinato, Dr. Tom Kratzenberg, and Dr. Linda Feduska-Kokai.

Steve Neidlinger, Dr. Andrew Stewart and Dr. Dave Sullivan.

MARK YOUR CALENDARS!

2018 Scientific Session

New Orleans
June 7–9, 2018

Dr. Rick Knowlton

Dr. Joe Chipriano

Dr. Michael Garver

Dr. Tim Ungarean

Dr. Bill Hammerlee

Dr. Eric Shelly

Dr. Nishita Irakulla

Dr. Martin Schroeder with AGD President Maria Smith

Continuing Education

CODING AND MEDICAL BILLING
FOR YOUR DENTAL TEAM

DENTISTS | TREATMENT TEAM | OFFICE MANAGERS

TWO Dates and Locations!

Friday, November 10
9 a.m. – 4 p.m.
Harrisburg Hilton and Towers
1 N. Second Street
Harrisburg, PA 17101

Saturday, November 11
9 a.m. – 4 p.m.
Valley Forge Casino and Resort
1160 First Avenue
King of Prussia, PA 19406

This interactive course will provide the dental team with the needed skills to start diagnostic coding and how to begin extra treatment under dental plans for patients at risk. Attendees will learn how becoming a wellness practice will provide your office with skills for increased billing and new services you can add. This course is presented by Christine Taxin, the founder and president of Links2Success, a practice management consulting company to the dental and medical fields.

At the end of this course, attendees should be able to identify:

- How to gather medical necessity information.
- What can be billed to medical, and why.
- How to use a risk assessment for documentation of patient risk.
- What can be billed to dental for additional payment.

Register today!

Visit **PAGD.org** and select **PAGD Events**

PEAK Track I Fall Meeting

Thursday, November 2 – Sunday, November 5
Lancaster Marriott at Penn Square
25 S. Queen St., Lancaster, PA 17603

Thursday

PEAK presentations from your colleagues.

Friday

Updates in Pediatric Dentistry: Treating Tiny Tots to Teens

Lance Kisby DMD, FASDC, FAGD, FAAPD, MAGD

This course features a comprehensive update in pediatric dentistry. Attendees will learn the current concepts in the causes and dental implications of the alarming increase in pediatric asthma, ADHD, autism and late preterm births. Participants will learn the latest concepts in caries formation and prevention, as well as how to perform a CAMBRA caries risk assessment. A discussion will include Indirect Pulp Caps and MTA/Biodentine pulpotomies. The topic of restorative dentistry includes new designs in tooth preparation, as well as how to use Silver Diamine Fluoride and when to use GIC, RMGIs, and a new flowable composite for Class I to Class V preps. The final topic of this course is a discussion of contemporary concepts in the biology, management, treatment and prevention of traumatic injuries.

Saturday

Update 2017: Practical Dentistry for the General Restorative Practice

Robert A. Lowe, DDS, FAGD, FICD, FADI, FACD, FIADFE, FASDA

In today's ever-changing economic environment, the dentist must continue to provide a quality service to the patient, yet remain profitable. Consistent, predictable, clinical techniques to create quality aesthetic and functional dental restorations in a time efficient manner are of paramount importance for a healthy practice. In this technique-filled seminar, Dr. Lowe will teach you the skills you need to refine your restorations to a level that will help you create consistent quality. New technologies and techniques will be discussed, along with how implementation of these technologies can help the "bottom line" of your practice. A discussion regarding the latest dental materials and delivery modalities will help in treatment planning even the most difficult functional and aesthetically challenging cases.

Sunday

Sex, Drugs and Oral Cancer

Robert Whitman, MSE

Recent trends in oral cancer have heightened the importance of a proper oral cancer screening protocol for all medical and dental professionals. Oral cancer has risen each of the past seven years, and the deforming disease is now affecting patients with no traditional risk factors. Due to a 225-percent increase in HPV-related oropharyngeal cancers, oral cancer is occurring in younger populations, changing the perception of who to screen. With the need for a new oral cancer screening protocol, adjunctive screening options will be covered in detail. This course will introduce recent and emerging technologies for early discovery of oral cancer, including fluorescence technology and quantitative cytology along with the importance of proper implementation.

Register today!

Visit **PAGD.org** and select **PAGD Events**

Welcome New Members

PENNSYLVANIA ACADEMY of GENERAL DENTISTRY

Irene Apata	DDS	Allentown	PA
Monica Babilonia	DDS	Coatesville	PA
Andrew Bezek		Erie	PA
Elissa Colledge	DDS	Altoona	PA
Biju Cyriac	DDS	York	PA
Levi Evalt	DDS	Corry	PA
Vanessa Kachulis	DMD	Pittsburgh	PA
Aleksandr Kitaygorodskiy		Pittsburgh	PA
Vani Kohli	DMD	Richboro	PA
Jason LaRue	DDS	Pittsburgh	PA
Ernesto Lee	DMD	Bryn Mawr	PA
Edward Lee	DMD	Philadelphia	PA
Steven Levine	DMD	Pittsburgh	PA
Rosa Lopez-Aldazabal	DMD	Philadelphia	PA
Landon Lowell		Erie	PA
Lauren Mazza	DMD	Pittsburgh	PA
Amit Motwani	DMD	Warrington	PA
Jennifer Price	DDS	Downingtown	PA
Tahira Rizvi	DMD	Philadelphia	PA
Priya Sridhar		Pittsburgh	PA
Audrey Su	DDS	Fairless Hills	PA
Bharat Tandon	DDS	Harrisburg	PA
Emma Yang	DMD	Lancaster	PA

An Overview of the Expanded Practice of PHDHPs

by Leigh Jacopetti-Kondraski, DMD, PAGD Advocacy Chair

A draft regarding the independent practice for Public Health Dental Hygiene Practitioners (PHDHPs) and their expanded practice in Pennsylvania was discussed prominently at the Pennsylvania State Board of Dentistry (SBOD) meeting on July 28, with a vote to proceed in the regulatory process scheduled for September 15. At that meeting, several SBOD indicated that the regulations were "just a draft" and had potential to aid with resolving Pennsylvania's access-to-care issue. Upon learning of the SBOD's intentions, PAGD quickly launched a campaign to advocate against this draft passing, as PAGD leadership felt we must make our strong opposition clear. Due to the resistance and opposition that were presented after the initial vote, the SBOD held a vote at its September 15 meeting.

In brief, the State Board was presented with a proposed draft regulation to expand sites of independent practice for PHDHPs. Regulation 49 Pa. Code @ 33.205b draft expands the settings of independent hygiene practice to allow PHDHPs to practice in locations such as homes of those receiving home health services, hospice, child care settings, and physicians' offices. The many issues with this potential expansion of PHDHP practice include, but are not limited to, the following:

1. In this system, the patient does not have a "dental home." They are only recommended, *not* required, to have an exam by a dentist within a year, and this is not required in order to continue to receive care from the PHDHP. Without examination from a dentist, this regulation does not improve access-to-care, only access to monitoring. Dentists still need to provide comprehensive examinations and restorative care, yet this model will not encourage or provide that care. Receiving a cleaning without proper evaluation and diagnosis by a dentist does not meet the standard of care. Also, patients may not seek further dental treatment if they have already satisfied their cleaning elsewhere.

2. Physicians often treat patients for oral pain and infections when there is no infection present, as they are not well versed in the evaluation or treatment of dental matters. Frequent or unnecessary prescribing of pain medicine and antibiotic therapy already has increased the incidence of opioid abuse and antibiotic-resistant bacteria in our country. Once pain has subsided, patients often do not return for treatment. Therefore, opportunities to properly evaluate and treat a patient's condition may be missed. Patients do not know or realize that neither medical doctors nor PHDHPs are qualified to evaluate or treat their oral health care needs.

3. Hygienists, regardless of their capabilities, do not receive the same level of training as dentists. One of the many differences in their training involves the ability to thoroughly review and evaluate a patient's health and medical status and determine whether or not they are safe to be treated, require antibiotic prophylaxis, or need alteration of current medications. Independent treatment outside the care of a medical doctor or dentist leaves this determination to the hygienist alone. They also are not trained to the same extent as doctors and dentists to deal with medical emergencies should they occur. Without proper review and consideration of medical information, there may be times when patients would be adversely

affected by hygiene services. Without proper dental evaluation, the services provided may not be adequate. Also, it is presumable that those patients in hospice, nursing home and homebound settings do not meet the initial criteria set forth by the PA Dental Code regarding a patient's ASA status for hygiene to practice without supervision.

4. The SBOD has strived to maintain and enforce a proper standard of care. This proposed draft allows PHDHPs to provide care that is below the expected standard. Their services can be provided without a patient ever having a proper evaluation, diagnosis or treatment plan. Furthermore, they are limited in the services that they may provide. For example, patients may be receiving a surface polishing when scaling and root planning is necessary. For these reasons, PAGD believes that this is essentially malpractice.

The board and leadership of PAGD have spent a considerable amount of time developing our position and advocating against the passing of the Regulation 49 Pa. Code @ 33.205b draft. When the draft was reconsidered on Sept. 15 by the SBOD, it was again passed. However, the regulatory road is still long, and PAGD did not plan nor intend to end their advocacy efforts after the vote regardless of the outcome. The majority of the SBOD voted to move this forward in the regulatory process as not to delay the potential to increase access-to-care with the understanding that amendments would be necessary to make this draft acceptable to the interested parties and public.

We are currently developing a list of our proposed suggestions and suitable amendments to offer to the SBOD in response to the vote being passed. We also have many future meetings and efforts in place to advocate on our members' behalf. Further information will be shared on PAGD Link as this materializes. We ask that you view the PAGD website, www.pagd.org, to remain informed. There you also will find further information on how you can assist in our efforts to oppose this, including a link to the petition we have started for dentists to join in our opposition efforts. Please recognize there is power in numbers, and you may once again be called to action to help us oppose this. We truly appreciate the attention and support you have given the PAGD Advocacy Committee during this process thus far to help PAGD protect our profession and the welfare of the public.

PAGD Advocacy Committee

- Donald Betar, DMD, FAGD
- Nicole Carnicella, DMD, MAGD
- Richard DeForno, DMD, MAGD
- John Della Croce, DDS, MAGD
- Edgardo Enriquez, DDS, MAGD
- Charles Fields, DDS, MAGD
- Vincent Floryshak, DDS, MAGD
- Eric Fort, DMD, MAGD
- Leigh Jacopetti-Kondraski, DMD, Chair
- Carl Jenkins, DDS, MAGD
- Michael Kaner, DMD, FAGD
- Richard Knowlton, DMD, MAGD
- Michael Korch, DMD, MAGD
- Thomas Kratzenberg, DMD, FAGD
- Kurt Laemmer, DMD, MAGD
- Frederick Lally, DDS, MAGD
- Kenneth Loeffler, DMD, MAGD
- Daniel Martel, DDS, MAGD
- Robert Nerone, DMD, MAGD
- Nicole Quezada, DDS
- Thomas Regan, DDS, MAGD
- John Robison, DMD, MAGD
- Eric Shelly, DMD, MAGD
- Dale Spadafora, DMD, MAGD
- David Tecosky, DMD, MAGD

Academy of General Dentistry™

2017 AGD Membership Application

For more information:
Join online at *www.agd.org*.
Call us at 888.243.3368 or 312.440.4300.

Promotional code:_____

Referral Information
If you were referred to the AGD by a current member, please note his or her information below:

_____
Member's name

_____
City, state/province, or U.S. Federal Services branch

Member Information

_____ _____ _____ _____ ☐☐ ☐☐ ☐☐☐☐
First name MI Last name Designation (e.g. DDS, DMD, BDS) Date of birth (mm/dd/yyyy)
Required for access to the members-only sections of the AGD website

Do you currently hold a valid dental license in your country of practice? ❑ No ❑ Yes: _____ _____ _____ _____
License number State/province Country Date renewed (mm/yyyy)

Type of membership (See back page for definitions.): (Check one.) ❑ Active general dentist ❑ Associate (dental specialist) ❑ Resident ❑ Dental student ❑ Affiliate

If you are not in general practice, please indicate your specialty: _____

Current dental practice environment: (Check one.) ❑ Solo ❑ Associateship ❑ Group practice ❑ Hospital ❑ Resident ❑ Corporate ❑ Other_____

❑ Faculty _____ ❑ U.S. Federal Services _____
Please indicate institution Please indicate branch

If you are a member of the Canadian Forces Dental Service, please indicate your preferred constituent: ❑ U.S. military counterpart ❑ Local Canadian constituent

Contact Information

Your AGD constituent (local chapter) is determined by your business address, unless one is not available.

Preferred billing/mailing address: ❑ Business ❑ Home
Preferred method of contact: ❑ Email ❑ Mail ❑ Phone

_____ _____ _____ _____ _____
Business address City State/province ZIP/postal code Country

_____ _____ _____
Name of business (If applicable) Phone Fax

_____ _____ _____ _____ _____
Home address City State/province ZIP/postal code Country

_____ _____ _____
Phone **Primary email** Website address

Educational Information

Are you a graduate of an accredited* U.S./Canadian dental school? ❑ Yes ❑ No ❑ Currently enrolled

_____ _____ _____ ☐☐ ☐☐
Dental school State/province Country Date of graduation (mm/yyyy)

Are you a graduate of (or resident in) an accredited* U.S. or Canadian postdoctoral program? ❑ Yes ❑ No ❑ Currently enrolled Type: ❑ AEGD ❑ GPR ❑ Other _____
**See back of form.*

_____ _____ _____ _____ _____
Postdoctoral institution State/province Country Start date (mm/dd/yyyy) End date (mm/dd/yyyy)

Optional Information

Gender ❑ Male ❑ Female
Ethnicity ❑ American Indian ❑ Asian ❑ African-American ❑ Hispanic ❑ Caucasian ❑ Other
I am interested in participating in the AGD Mentor Program as a: ❑ Mentor ❑ Mentee

Stay Social With the AGD!

Search "Academy of General Dentistry" to connect with us on:

Dues Information

Please check membership type applying for:

	U.S./ International	Canada (in Canadian dollars)	Puerto Rico
❑ Active General Dentist	$386	$427	$324
❑ Associate	386	427	324
❑ Affiliate	193	214	162
❑ Resident	77	86	65
❑ 2016 Graduate	77	86	65
❑ 2015 Graduate	154	171	130
❑ 2014 Graduate	231	256	194
❑ 2013 Graduate	308	341	259
❑ Dental Student	17	22	17

1. AGD Headquarters Dues: ..... _____

2. AGD Constituent Dues: ..... _____
Please refer to back side for constituent dues.

Total Amount Enclosed: ..... _____
Dues rates effective through Sept. 30, 2017.

Payment

❑ Check (enclosed)
❑ Visa ❑ MasterCard ❑ American Express
Note: Payments for Canadian members can only be accepted via Visa, MasterCard, or check.

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

_____/_____ _____
Expiration date (mm/yyyy) Please print name as it appears on the card.

I hereby certify that all of the above information is correct, and that by signing this application agree to all terms of membership, including completion of 75 hours of continuing education every three years for active general dentist and associate members.

_____ _____
Signature Date

Return this application with your payment to: Academy of General Dentistry, 560 W. Lake St., Sixth Floor, Chicago, IL 60661-6600, USA.
If paying by credit card, fax to 312.335.3443.

1 Find the membership category and corresponding dues amount that applies to you.

Active General Dentist
Dentists who graduated from an accredited school of dentistry more than four years ago, or who successfully completed an accredited general practice residency or advanced education in general dentistry program in the U.S. or Canada, or who hold a license to practice dentistry in any state or territory in the U.S. or province of Canada. International dentists (residing outside of the U.S. and Canada) who are licensed to practice in their country of residence are also eligible.

Associate
Dentists who are graduates of accredited dental schools or hold a license to practice dentistry in their country of residence but are practicing as specialists rather than as general dentists.

Affiliate
All persons not eligible for any other type of membership in the AGD but who support the aims and objectives of the organization.

In recognition of the financial challenges faced by students and recent graduates, the AGD provides reduced annual headquarters dues for the following membership categories:

Recent Graduate
Dentists who have graduated in the past four years from an accredited dental school in their country of residence.

Resident
Dentists currently enrolled in an accredited advanced dental education program in the U.S. or Canada. Other types of programs (e.g., postdoctoral, masters) do not qualify for the residency discount. Proof of residency enrollment needs to be provided to the AGD on official program letterhead. Upon completion of a qualifying residency program, AGD members who submit proper verification may qualify for up to 150 hours of continuing education credit toward pursuit of the AGD Fellowship Award.

Dental Student
A predoctoral student of an accredited dental school in their country of residence.

Official accreditation is given by the Council on Dental Accreditation in the U.S. and the Council on Dental Accreditation in Canada for all Canadian provinces.

Annual AGD Headquarters Dues

	U.S./ International	Canada (in Canadian dollars)	Puerto Rico
Active General Dentist	$386	$427	$324
Associate	386	427	324
Affiliate	193	214	162
Resident	77	86	65
2016 Graduate	77	86	65
2015 Graduate	154	171	130
2014 Graduate	231	256	194
2013 Graduate	308	341	259
Dental Student	17	22	17

2 Find your constituent and corresponding dues amount.
AGD constituent dues are determined by practice, dental school, residency location, or branch of the U.S. federal services. If none of these applies to you, your constituent will be determined by your home address. Constituent dues support local AGD activities and are required.

	Regular	First-Year Dental School Grad
U.S. Federal Services:		
U.S. Air Force	$15	$15
U.S. Army	30	30
U.S. Navy	20	20
U.S. Public Health	15	15
Veterans Administration	14	14
United States:		
Alabama	97	49
Alaska	50	24
Arizona	35	35
Arkansas	45	10
California	180	16
Colorado	40	10
Connecticut	15	10
Delaware	20	10
District of Columbia	105	45
Florida	95	20
Georgia	95	25
Hawaii	40	40
Idaho	75	25
Illinois	70	0
Indiana	60	15
Iowa	95	10
Kansas	55	8
Kentucky	49	10
Louisiana	48	10
Maine	30	25
Maryland	60	25
Massachusetts	36	10
Michigan**	50	25
Minnesota	115	25
Mississippi	30	20
Missouri	50	5
Montana	75	75
Nebraska	70	15
Nevada	40	25
New Hampshire	20	20
New Jersey	100	10
New Mexico	50	20
New York**	125	20
North Carolina	110	16
North Dakota	24	0
Ohio	45	45
Oklahoma	30	30
Oregon	111	5
Pennsylvania	145	33
Puerto Rico	15	0
Rhode Island	20	20
South Carolina	85	20
South Dakota	45	10
Tennessee	75	20
Texas**	239	99
Utah	45	25
Vermont	30	30
Virginia	62	31
Washington	100	0
West Virginia	25	15
Wisconsin	50	17
Wyoming	15	15
Canada (in Canadian dollars):		
Alberta	100	100
Atlantic Provinces (New Brunswick, Newfoundland, Nova Scotia, Prince Edward Island	100	100
British Columbia	100	100
Ontario	100	100
Quebec	100	100
International	0	0
Unorganized (no local constituent):		
Canal Zone	0	0
Civil Service	0	0
Manitoba	0	0
Northwest Territories	0	0
Peace Corps	0	0
Saskatchewan	0	0
Virgin Islands	0	0

**Recent graduates and residents in Michigan pay $25 constituent dues. Recent graduates and residents in New York pay $20 constituent dues. Texas members joining July 1 through Sept. 30 pay only $119 in constituent dues. Recent graduates in Texas pay reduced constituent dues as follows: $99 (first year out/residents); $139 (second year out); $191 (third year out).
For information on AGD component dues in California, Indiana, Florida, and Texas, please contact the AGD Membership Services Center at 888.243.3368 or 312.440.4300.

Read the fine print

Dues Information
Individuals joining July 1 to Sept. 30, 2017, pay half the annual headquarters membership dues. Half-year dues do not apply to student, resident, first-year graduate, or affiliate member types, or to constituent/component dues.

Individuals joining Oct. 1 to Dec. 31, 2017, enjoy membership through the end of 2018. Paid dues will be applied to the upcoming year.

U.S. Tax Information
The U.S. Revenue Reconciliation Act of 1993 requires the AGD to notify you that a portion of your membership dues payment (1.2 percent) is not deductible as a business expense because it is allocable to lobbying activities of the organization. For members of the Texas AGD constituent, 7.0 percent of the constituent membership dues is not deductible as it is allocable to lobbying activities of the Texas AGD. For more detailed information, please check with your accountant or tax adviser.

AGD Organizational Information
The AGD adheres to and abides by the American Dental Association's (ADA) Code of Ethics. The AGD advocates membership in all aspects of organized dentistry and encourages its members to join the ADA, NDA, or CDA, and other dental organizations.

AGD Privacy Information
The AGD knows that you value your privacy, and we appreciate your trust. The AGD treats the handling of your personal information very seriously. To that end, the AGD has systems and procedures in place to protect your privacy when handling your personal information.

The AGD does not collect personal information unless it is necessary for the AGD to perform one or more of its functions and activities. On occasion, some of this personal information may be sensitive, and the AGD will only collect it with your consent or when required to by law.

In accordance with the Canadian Personal Information and Electronic Documents Act (PIPEDA), the AGD does not share personal information other than name, preferred address, and phone number for commercial purposes.

To remove yourself from any third-party mailing lists, contact the AGD Membership Services Center at 888.243.3368 or 312.440.4300.

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PENNSYLVANIA ACADEMY of GENERAL DENTISTRY

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