Making Green Work

A PRACTICAL GUIDE
TO IMPROVING THE HEALTH OF YOUR PATIENTS,
YOUR PRACTICE AND THE ENVIRONMENT
With new requirements from the Environmental Protection Agency (EPA) on the horizon regarding the capture of mercury in dental amalgam, many dentists are reviewing their waste management procedures, and are asking questions about what’s required.

Similarly, the buzz surrounding the green movement is making the world of eco-friendly practices increasingly difficult to ignore. From hybrid cars to environmentally-friendly laundry detergent, it seems like every company is jumping on the green bandwagon.

As a dentist and business owner, how can going green work FOR you?

Being out of compliance represents an unnecessary risk to a dental practice, and it also puts the health of the environment and the public at risk. But how do you reduce your compliance-related risk? How can going green positively impact your bottom line without adding to your practice’s workload? And, how can you communicate your actions to patients?

To help dental practices better understand these issues, we assembled this how-to guide. It includes information on mercury and x-ray waste, and how to best ensure Compliance. We also go Beyond Compliance, showing you the top three steps you can do today to green your practice, helping you to save money and attract more patients at the same time.

Finally, we’re introducing PureLife’s new Environmental Leaders Program — a partnership program that will recognize the steps you take towards compliance and beyond, while helping you to communicate your commitment to environmental and public health to your patients and employees. To help reduce the costs associated with environmental compliance, our program partners will receive discounts on our Green Collection of eco-friendly products, along with other benefits. It’s our way of making green work for you.

We’ve designed this guide as a tool — write in it, make notes, use it and make it yours. If you have any questions as you go, our highly-trained staff is always here to answer your questions.

Keeping up with changing regulations and consumer trends can be difficult. We’re here to help.

Sincerely,

Rodney Hanoon, CEO
PureLife Dental

Dear Dental Practitioner,

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With an increasing focus on the environmental impacts associated with dentistry, it can be difficult for dental practitioners to fully understand and act upon new information. Still, ensuring compliance with regulations and evaluating new eco-friendly technologies not only reduces a dentist’s risk and liability, it also provides opportunities for growth, while improving both environmental and public health.

The EPA estimates that approximately 50% of the mercury in wastewaters originates in dental offices, due to the use of mercury amalgam fillings. The presence of mercury in wastewaters has caused increasing concern, as mercury presents an acute toxicological threat to humans. As such, a number of states have begun to regulate the disposal of mercury amalgam, and the EPA recently announced its intention to create a federal rule designed to accomplish the same thing, on a national scale. Fortunately, the dental industry already has all of the tools it needs to achieve drastic reductions in the amount of mercury released into wastewaters. By capturing and storing all contact and non-contact amalgam, installing an amalgam separator, and recycling the captured mercury, dentists can virtually eliminate their contribution to this problem. For assistance with these steps, dentists can use the tools available in this guide to implement the right solutions for their practice.

Many dental practices also create toxic, hazardous waste through the use of traditional x-ray machines. From the silver contained in x-ray fixer to the lead found in foils, aprons and bite-wings, the environmental hazards associated with traditional x-rays abound. Regulations already exist, nationwide, to deal with each of these hazards, and dentists meeting these regulations are reducing their environmental impact. Still, a more permanent solution to photochemical waste exists, and is being widely adopted by dental practices — digital x-ray systems. Thanks to the elimination of photochemicals, along with higher patient acceptance and revenues, digital x-ray systems can achieve a payback period of less than two years.

In addition to the obvious environmental and health impacts from mercury and x-ray waste, dental practices can affect the environment in a myriad of other ways. Just like other types of offices, dental practices are responsible for their fair share of resource use, pollution and carbon emissions. However, for dental practices, a few easy steps will provide the most positive impact. Working to cut energy use, improving office operations and making smart purchases will not only reduce a practice’s environmental impact, but will also attract higher income “green” patients, while improving employee attraction and retention.

In each of these three areas, PureLife provides essential solutions. A one-stop shop for affordable waste services, including amalgam and x-ray waste, both turnkey and à la carte solutions are available “at cost”. On-call experts can answer questions, and will conduct any needed research regarding local requirements. PureLife also offers a number of products with green features, such as reduced packaging or all natural content. PureLife’s Environmental Leaders Program recognizes the steps dentists take towards better environmental stewardship, providing discounts on green products, as well as marketing support to help dentists communicate their efforts to patients and staff.

### Executive Summary

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### About This How-to Guide

We see a lot of opportunity on the horizon for dentists. Several trends, when taken together, point towards a sea-change in the industry. From new environmental regulations to the rise of “green” consumers and the advance of dental-related technologies, dentists who see the big picture can stand out from the competition and grow their practices. At a minimum, staying up-to-date on compliance issues reduces a dentist’s risk and liability. Whether you’re interested in leading the pack, or you’re just looking to meet legal requirements, we’ve compiled this how-to guide to help you get there.
At one time, the regulated disposal of biohazards and sharps was considered new and different — some may have even considered it unnecessary. Now, not only is the disposal of these items regulated, it is second-nature for healthcare providers to dispose of these materials properly.

As more evidence emerges regarding the impact of certain materials on both environmental and public health, more regulations are developed. Currently, two key areas that dental practices need to manage properly are mercury-containing amalgam waste, and x-ray or photochemical waste.
Mercury (Hg) is a heavy metal that is safely used in a number of products and industries. However, once mercury enters water or soil, bacteria convert it into methylmercury, a potent neurotoxin that can cause brain, kidney and lung damage in humans. As severe as the consequences of mercury poisoning are, it’s amazingly easy for people to reach high levels of exposure.

Unfortunately, mercury has infiltrated our lakes, rivers and oceans, contaminating fish and causing harmful neurological effects in people who consume those fish, particularly children and pregnant women.

Underlining this issue, public health advisories have been issued in over 40 states warning people to limit their consumption of both freshwater and saltwater fish. Despite these advisories, one in ten women of childbearing age has been exposed to mercury at levels above what is considered safe, according to the Center for Disease Control and Prevention.
According to the EPA, at least 12 states and numerous localities have mandatory pretreatment programs in place, requiring the use of amalgam separators to capture amalgam before it reaches sewer lines.\(^3\) Several additional states have new regulations pending. To complicate matters even more, OSHA rules for handling amalgam waste differ from state to state, so it’s important for dental practices to stay up-to-date on the rules and regulations that affect them. For the latest on your state’s regulations, contact your state OSHA office, dental association, or just call one of our waste experts.

### The Regulations

Since mercury amalgam is here to stay, at least for the foreseeable future, many states and municipalities have begun to regulate its disposal.

According to the EPA, at least 12 states and numerous localities have mandatory pretreatment programs in place, requiring the use of amalgam separators to capture amalgam before it reaches sewer lines.\(^4\)

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## Dentist the Menace

Dental amalgam is here to stay, at least for the foreseeable future, many states and municipalities have begun to regulate its disposal.

It may come as a surprise that much of the mercury that enters our waterways comes from dental amalgam, which is a mix of 50% mercury, and a powder containing silver, tin, copper and other metals.

Thanks to efforts to reduce the use of mercury in some industries, overall mercury use has decreased. These industries have also seen increased regulations on mercury use and disposal, decreasing the amount of mercury those industries release into wastewaters. However, dental amalgam remains largely unregulated, and therefore represents a growing percentage of the toxic metal present in our wastewater.

In fact, though dentists account for less than 0.1% of the US population, the EPA estimates that dentists are responsible for approximately 50% of the mercury pollution in our wastewaters — a staggering amount for such a small community.\(^5\) As shocking as that figure is, it is even higher in some areas, like Palo Alto, CA, where a full 83% of the mercury found in wastewaters has been attributed to dental amalgam.\(^6\)

Due to the health risks associated with mercury, many dentists have switched to non-mercury alternatives for fillings, such as composites. Though this is an important step in reducing the amount of mercury that dentists release into wastewater, it is important to note that mercury is still released each time an amalgam filling is worked on or removed.

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1. Environmental Protection Agency, Mercury in Dental Amalgam; http://www.epa.gov/mercury/dentalamalgam.html
4. Environmental Protection Agency; www.epa.gov/region8/water/pretreatment/pdf/Th4_AlDube_AmalgamSeparatorsWhatsNew.pdf
5. Environmental Protection Agency, Mercury in Dental Amalgam; Retrieved February 18, 2011 from http://www.epa.gov/mercury/dentalamalgam.html
Step 1:
Capture scrap amalgam.
Dentists should collect and store all contact and non-contact scrap amalgam for recycling. This includes any left-over bulk amalgam, spent capsules, and disposable chairside traps.
ALSO: Make sure to change chairside amalgam traps as often as necessary, flushing the vacuum system with disinfecting line solution beforehand. Do not rinse used traps or other mercury-related items in the sink, as this releases the captured amalgam directly back into wastewaters.
Store used traps and other amalgam waste in labeled, tightly closed containers for recycling.

Step 2:
Install an Amalgam Separator.
The ADA estimates that 25% of amalgam waste enters wastewaters even after the use of chairside traps and other capturing methods. Amalgam separators are inexpensive and easy to install — installation can often be accomplished by the dentist in just a few minutes. Separators represent the single-most effective solution for mercury waste.

Step 3:
Recycle Waste Amalgam.
All full separator canisters must be recycled according to the manufacturer’s specifications (typically every 6 to 12 months). For scrap or other waste amalgam, check with OSHA or your local wastewater treatment facility for state or local regulations regarding disposal.
ALSO: Since mercury requires special handling, make sure that your recycling company can process mercury waste. Full canisters must never be rinsed out in the sink, as this releases the captured amalgam directly back into wastewater. Canisters must not be disposed of in the trash or in a hazardous waste container, as these may ultimately be incinerated, releasing toxic mercury emissions into the atmosphere. Pick-up services are available, though mail-back programs are generally more cost-effective.

Step 4:
Retain your Recycling Certificate.
Doctors are responsible for all of their waste, until it is received by the recycler. Once the recycler accepts your waste, a certificate will be sent to you. Retain this certificate as proof of your recycling.

The Solution
It is possible to eliminate mercury pollution by implementing a proper collection and recycling program for waste amalgam, which includes the installation of an amalgam separator. This solution is extremely simple and allows dentists to eliminate 99% of their mercury waste:

Risks for Non-Compliance
Though the specifics of amalgam waste compliance are becoming increasingly difficult to navigate, non-compliance can be hazardous to your bottom line.
Failure to comply with regulations can lead to heavy fines and even expensive clean-up efforts. Doctors retain liability for all of the waste they generate until it has been successfully recycled, so properly capturing and recycling amalgam waste is essential for avoiding financial repercussions.

What is an Amalgam Separator?
Amalgam separators are solids collectors installed on the vacuum lines of dental offices. They use gravity to capture all waste amalgam, along with any other solid material, before it reaches the sewer. In general, they are easy to install and operate. Some models may be installed in just a few minutes, though some systems may require a plumber or technician. Maintenance typically involves replacing the container once it’s full; generally every 6–12 months depending on the size of the practice.
Full canisters must be sent in for recycling to a waste management company that can handle amalgam waste. Most separators are certified to remove 99% of dental amalgam — a level of effectiveness that exceeds the ISO standard and meets all local regulations.

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Remember…
Though not every state requires the use of amalgam separators, they are part of the ADA’s best management practices (BMPs).
For more information on BMPs related to the disposal of amalgam, visit www.ada.org.

Association policy strongly encourages dentists to adhere to best management practices and supports other voluntary efforts by dentists to reduce amalgam discharges in dental office wastewater.”
— American Dental Association
**Amalgam Separator Action Plan**

To eliminate your amalgam liability and ensure compliance with current and future regulations, use this simple action plan to find the best amalgam separator for your practice.

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**STEP 1:**
Determine your capacity requirements (number of chairs in practice).

**STEP 2:**
Decide which model of separator will work best for your practice.

**STEP 3:**
Check the dimensions to make sure the separator will fit in the space allotted.

**STEP 4:**
Select a vendor (use checklist below).

**STEP 5:**
Purchase and install the amalgam separator.

**STEP 6:**
Recycle the container as appropriate.

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**VENDOR CHECKLIST**

<table>
<thead>
<tr>
<th>CONSIDER...</th>
<th>VENDOR 1</th>
<th>VENDOR 2</th>
<th>VENDOR 3: PureLife</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separators available for small and large practices</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
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<tr>
<td>Separators exceed ISO requirements/local regulations</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Multiple manufacturers available</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Recycling certificate provided</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Expert support available</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Competitive pricing on separators and recycling services</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Discounts on separators and recycling</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
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**INDICATIONS:**

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Occlusal Stress</th>
<th>Extent of caries</th>
<th>Cost to patient¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ages</td>
<td>Moderate stress</td>
<td>Incipient to moderate size cavity</td>
<td>1x</td>
</tr>
<tr>
<td>All ages</td>
<td>Low-stress bearing</td>
<td>Incipient to moderate size cavity</td>
<td>1.5x</td>
</tr>
<tr>
<td>All ages</td>
<td>Adult-class V and low stress primary teeth</td>
<td>Incipient to moderate size cavity</td>
<td>1.4x</td>
</tr>
<tr>
<td>Adult</td>
<td>Class III and V and crown repair</td>
<td>Class I and II child incipient to moderate size cavity</td>
<td>4x</td>
</tr>
<tr>
<td>Adult</td>
<td>High-stress areas</td>
<td>Severe tooth destruction</td>
<td>3x + gold</td>
</tr>
<tr>
<td>Adult</td>
<td>High-stress areas</td>
<td>Severe tooth destruction or aesthetic considerations</td>
<td>8x</td>
</tr>
</tbody>
</table>

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**Amalgam Separator Action Plan**

Get a FREE amalgam separator from PureLife ($499 value) with the purchase of the first year’s recycling at only $299!

Just call 877-777-3303 to claim yours!

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**Dental Amalgam Use & Alternatives¹**

<table>
<thead>
<tr>
<th>CRITICAL PARAMETERS IN EVALUATING POSTERIOR RESTORATIVE MATERIALS</th>
<th>Amalgam</th>
<th>Composite</th>
<th>Glass Ionomer</th>
<th>Gold Foil</th>
<th>Gold Alloy (Cast)</th>
<th>Metal-Ceramic Crowns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Longevity Estimate</td>
<td>8 – 12 years</td>
<td>6 – 8 years</td>
<td>No Data²</td>
<td>No Data²</td>
<td>12 – 18 years</td>
<td>12 – 18 years</td>
</tr>
<tr>
<td>Relative Surface Wear</td>
<td>Fair to excellent</td>
<td>Excessive wear in stress-bearing situations</td>
<td>Excessive wear in stress-bearing situations</td>
<td>Excessive wear in stress-bearing situations</td>
<td>Wears similar to enamel</td>
<td>Excellent</td>
</tr>
<tr>
<td>Resistance to Fracture</td>
<td>Fair to excellent</td>
<td>Poor to excellent</td>
<td>Poor to excellent</td>
<td>Poor to excellent</td>
<td>Fair to good</td>
<td>Excellent</td>
</tr>
<tr>
<td>Marginal Integrity (leakage)</td>
<td>Fair to excellent (self-sealing through corrosion products)</td>
<td>Poor to excellent</td>
<td>Poor to excellent</td>
<td>Poor to excellent</td>
<td>Fair to good (depends on fit and type of buting agent used)</td>
<td>Poor to excellent (depends on fit and type of buting agent used)</td>
</tr>
<tr>
<td>Conservation of Tooth Structure</td>
<td>Good</td>
<td>Excellent</td>
<td>Excellent if initial restoration, not if replacement</td>
<td>Good</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Esthetics</td>
<td>Poor</td>
<td>Excellent</td>
<td>Good</td>
<td>Poor</td>
<td>Poor</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

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1. Longevity estimates reflect from published studies; however, under different clinical situations many restorations will last longer. For materials that have emerged in the last decade and gold foil, estimates are speculative.

2. Relative cost to patient, in relation to amalgam (1x). There may also be considerable geographic variation.
Dental offices generate many different forms of waste as a result of x-ray processing. Like the mercury found in amalgam, the waste generated by traditional x-ray processes can have a serious impact on wastewaters and soil, and thus, environmental and human health.

The Problem
After mercury, x-ray waste poses the second largest health threat in a dental office. Dental offices generate many different forms of waste as a result of x-ray processing, including:

• **Lead.**
  This toxic metal, found in lead foil, aprons and bite wings contaminates soil and water if not disposed of properly. Lead poisoning causes many severe physical symptoms, from learning disabilities to nervous system problems.  

• **Developer.**
  The pH of used, undiluted developer may be outside of the accepted range for release directly into wastewater systems.

• **Developer systems cleaner.**
  Some cleaners contain chromium, a toxic, carcinogenic metal.

• **Fixer.**
  Used fixer contains silver ions, a form of the metal that is severely toxic to fish and other aquatic life.

• **X-ray film.**
  Like fixer, x-ray film contains silver, making it hazardous waste.

• **X-ray equipment.**
  Old equipment may contain PCBs, a class of persistent toxic pollutants that were banned in the U.S. in 1979.

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The Regulations
Reduce Your Liability!

Many regulations exist for disposing of hazardous x-ray wastes, but they can vary significantly by location so it’s important for each dental office to investigate its specific requirements.

For example, used developer can be poured directly down the drain in some locations, but in most parts of California it must first be diluted before it can be disposed of. Check with your local OSHA office, wastewater treatment agency or state dental association for details on what your state and municipality require.

Despite these variances, some commonalities exist regardless of your location. For example, the disposal of used fixer is strictly regulated nationwide due to its high toxicity level. The silver must be removed — either through an in-office photochemical filtration system or by a waste disposal company — before it is discharged into waste systems.

The Solution
By implementing an x-ray waste collection and recycling program, these wastes can be prevented from entering the environment.

**STEP 1:**
Investigate local regulations.
Contact your local wastewater treatment agency to determine your waste disposal requirements. If you’re unsure of who to contact or what your local requirements are, please contact one of our waste experts — we will investigate this for you, and will present the available options that meet all requirements.

**STEP 2:**
Capture waste lead.
All lead items should be collected in UN/DOT approved storage containers, and sent to a certified recycler.

**STEP 3:**
Filter used fixer.
Spent fixer is a hazardous waste, due to its high silver content. Several options exist to deal with this material:

**OPTION 1**
Onsite Treatment:
Purchase and use a photochemical filter to remove silver content. Once the silver is filtered out of the spent fixer, some areas it may be safely poured down the drain, as long as the facility does not have a septic system (even small amounts of fixer can damage septic systems). In some locations you must receive prior approval before discharging filtered fixer, so check local regulations.

**OPTION 2**
Recovery Service:
Contract with a recovery service, like a refiner, to remove the silver from the fixer.

**OPTION 3**
Hazardous Waste Service:
Contract with a hazardous waste hauler for recycling.

**STEP 4:**
Dilute developer (if required).
In some areas, like in parts of California, developer must be diluted before it can be poured down the drain. Special dual-purpose photochemical filters that both dilute the developer and filter the fixer are available.

**STEP 5:**
Use non-chromium developer system cleaners.
Some developer system cleaners contain chromium, a toxic, carcinogenic metal. Read your cleaner’s Material Safety Data Sheet (MSDS) to determine if it contains chromium or “chromate”8. If it does, switch to a chromium-free version.

**STEP 6:**
Recycle x-ray film.
Used x-ray film contains silver. Recycle used film as scrap metal, or contract with a hazardous waste hauler for recycling.

**STEP 7:**
Shift to digital x-rays.
Though instituting a waste collection and recycling program will prevent your practice’s hazardous waste from entering the environment, the preferred solution is to shift to digital x-ray systems. A growing number of dentists have already shifted to digital x-rays, which do not require film fixer and developer — just make sure to properly dispose of old equipment and chemicals (ask your digital x-ray supplier for details).

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8. Ibid.
Case Study

Dental practice saves more than $8,000 with digital x-rays.

When Dr. Thomas K. Kaminsky, D.M.D., P.C., installed a new digital radiographic x-ray system in his office as part of a pollution prevention loan program, the benefits were significant — and not just in terms of reduced pollution. In addition to saving 2,000 gallons of water, 1,200 kilowatts of electricity, and 102 gallons of waste chemicals, the practice saved $8,098 in the first year thanks to the new equipment. In addition, the digital system cut radiation emissions by 80% — a benefit that patients are sure to appreciate.

“Patients who are effectively educated and understand their treatment needs are far more likely to accept the treatment you recommend. High-resolution, large-format, digital-radiographic images — optimized to display what you want to show — are far easier for the patient to view and understand.”

— Dr. David Gane, DDS in Dentistry IQ

Benefits of Digital X-Ray Systems

Improve Profitability!

Though more than half of dentists still use traditional analog x-ray systems, more and more dentists have upgraded their equipment to digital systems.

This technology is expected to continue to gain rapid acceptance among dentists in the U.S., with annual unit sales of digital sensors expected to increase at a compound annual growth rate of 9.2 percent by 2016.15 There are many reasons for the rapid acceptance of digital x-ray systems, including:

**High return on investment.** Despite the initial capital outlay for digital x-ray equipment, the systems’ greater efficiencies provide for a relatively short payback period — some estimate a payback period as short as 1.23 years.15 Since digital x-ray machines don’t use film, developer or fixer, these costs are eliminated from day one. Staff efficiency also improves, as less time is spent processing and managing x-rays, while some offices have begun charging slightly higher rates for digital imaging.

**Higher patient acceptance and revenue.** Viewing digital x-rays on a monitor better allows patients to see and understand their treatment needs, making them far more likely to accept the recommended treatment plan.19 Printed copies can also be provided to the patient for discussion with family members, assisting in personal financial planning and acceptance of treatment plans.

**Improved patient care.** Digital x-rays allow the doctor to zoom in on problem areas, while still viewing images at full resolution. This can lead to better diagnoses and a more complete treatment plan.21 Historical image comparisons are also available with digital x-rays.

**Lower patient radiation.** Though radiation exposure from analog x-rays is very low, digital systems cut that amount significantly, reducing exposure by up to 90%.15

**Increased referrals.** For many patients, high tech equates to high quality. Digital x-rays have been shown to increase referrals from existing customer bases.15

**Elimination of toxic waste.** Without the film, developer and fixer, toxic x-ray waste is eliminated, as are the liabilities and costs associated with managing it. Moreover, office staff is no longer exposed to these toxic chemicals on a daily basis.

11. Dentistry IQ, “How to Profit From...Solid-state digital radiography imaging” — Dr. David Gane, DDS; April 1, 2003.
12, 13, 14. Ibid.

“The rapid emergence of digital technology for capturing intraoral x-ray images is a global trend and is driving growth in the overall dental imaging market...The United States is undergoing a rapid adoption of digital technology.”

— Dental Tribune, July 2010

15. Source: Pennsylvania Department of Environmental Protection

See For Yourself

To investigate your own cost savings, try an x-ray calculator like the one available from DEXIS Digital Diagnostic Imaging, available at DEXIS.com. Just plug in the number of x-rays you take to see how their solution compares to traditional x-ray costs.

“Do the Math!"
Getting Started…PureLife Can Help

At PureLife, we have a deep commitment to our customers—we strive to take care of all of your needs, so that you can get back to managing your practice and providing top-notch dental care. We also know that dentists are looking for a good value.

To take the hassle out of making sure all waste compliance requirements are met, we offer an easy, comprehensive solution. Since we strive to provide environmental leadership to the dental industry, working to remove any roadblocks dentists might face, we make these solutions available at greatly discounted prices. It’s just one way that we can make a difference, every day.

ONE-STOP SHOP!

Amalgam Waste Compliance Solutions

Everything you need…

- Amalgam Separators: Best-in-class, low maintenance, easy to install and certified with a rating of 99.8% effectiveness for mercury removal, better than the ISO standard.
- Complete Amalgam Recycling Program: Easy and affordable storage, disposal and recycling for all your amalgam waste. We provide your office with all of the necessary containers, complete with prepaid mailing labels ready for UPS or FedEx — it couldn’t be easier.
- Experts, on call: Call our hotline with the questions you have now, or anytime in the future. Our highly trained waste experts are always available to help.
- Documentation and Certification: Our solutions will put you in full compliance, so we’ll provide all documentation and certifications for your records… and your peace of mind.
- All of the above, “at cost”: We don’t count on our waste services to make a profit — in fact, we subsidize our waste services through sales of our dental supplies. This means you get the best pricing available, saving you money year after year.

X-ray Waste Compliance Solutions

Ensure compliance, at half the cost of other services…

- X-ray Photochemical Recovery: Our EPA-approved photochemical filtration units ensure compliance, nationwide.
- Lead Foil Recycling: Capture spent bitewing x-ray film in our easy and affordable storage and recycling containers. These UN/DOT-approved shipping containers come complete with pre-paid return shipping service, ready for UPS.
- Experts, on call: Call our hotline with the questions you have now, or anytime in the future. Our highly trained waste experts are always available to help.
- Documentation and Certification: Our solutions will put you in full compliance, so we’ll send you the complete documentation and certification for your records and peace of mind.
- All of the above, “at cost”: Like with amalgam, we don’t count on our x-ray waste services to make a profit, so we have the best possible prices on photochemical waste services.

Bio-hazard/Sharps & OSHA Documentation

Round out your waste services…

- Bio-hazard and Sharps Disposal: Complete your waste compliance with our UN/DOT-approved shipping containers, which includes a prepaid box, ready for shipping and disposal.
- OSHA Training Documentation: Designed to keep your office in annual compliance, our state-specific dental OSHA training kit includes an office binder with all pertinent and required OSHA information, as well as individual employee training manuals, documented employee testing, and a toll-free hotline for questions and help.
- All of the above, “at cost”: Did we mention that we don’t count on our waste services to make a profit? We subsidize our waste services through sales of our dental supplies, saving you money on these essential products and services.

PureLife Benefits

Since managing waste is only a small part of what we do, we can offer deep discounts on all of our waste products and services.

These discounts are on top of already cost-effective programs, since our simple mail-back process costs up to 50% less than typical pick-up service. Plus, most of our products are mailed back using UPS or FedEx, so there’s no need to make a trip to the post office — just add the items to your regular pick-up or call to schedule one. Finally, our Environmental Leaders Program provides additional discounts and benefits for properly managing waste — see page 31 for more details.

Get unlimited access to our highly trained waste experts!
877-777-3303

Already Have A Digital X-Ray System?

Join our Environmental Leaders Program, and receive 20% off all Green Collection purchases at PureLife Dental!

Find out more on page 31…

SAVINGS…

- Amalgam separators and recycling services — At Least 30% Off Retail Prices
- X-ray and bio-hazard/sharps waste collection — At Least 20% Off Retail Prices
- Even greater savings for customers who also purchase dental supplies

CUSTOMIZATION…

- Turnkey or à la carte services — increase efficiency by having us handle all of your waste, or pay for only the services that you need…it’s your choice!
- Flexible solutions — we’ll work with you to design a waste program that fits your needs and ensures you’re compliant with local regulations — no more, no less.
- No long-term contracts required. Try us out, with no obligation.

DOCUMENTATION…

- Free certificates of recycling — proof that you’re in compliance, so you can rest easy.
- Free membership in PureLife’s Environmental Leaders Program, which brings discounts on our Green Collection of products, plus marketing support and other benefits. (see Leadership, p. 31)
The Problem
Like other types of offices, dental practices are responsible for their fair share of resource use, pollution and carbon emissions. From paper charts and energy consumption to employee commuting and disposable dental supplies, it all adds up.

While many of these areas are absolutely essential for running an efficient dental practice and providing the best patient care possible, there are ways to reduce the environmental and health impacts of doing so.
Practice Benefits:
In addition to saving money, taking steps to improve your office’s impact on environmental and human health has many benefits, including:

- **Improved reputation/marketing:** According to a recent survey, 42% of consumers prefer purchasing products and services from a company with a strong environmental reputation.17 Through advertising, marketing and branding, your practice will stand out and appeal to the rising environmental awareness in the patient community.

- **Employee attraction/retention:** Employees also prefer to work for an environmentally responsible organization — 81% said so.18 A happier staff leads to less attrition and less time spent training, which translates to cost savings, increased productivity, and ultimately, greater profitability.

- **Attract higher income, less price-sensitive patients:** By making patients aware of your green initiatives, your practice will appeal to the “green” consumer (see sidebar).

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Who Is The “Green” Consumer?
A recent study shows that compared to the average consumer, “green” consumers:

- **Are a little older, with higher income and more education**
- **Are more brand and retailer loyal**
- **Buy more and shop more often**
- **Are less price sensitive and are not generally bargain hunters**

Does this sound like the type of patient you would like to have in your practice?


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Cut energy use.

Often, energy accounts for the largest portion of an office’s carbon emissions. Fortunately, improvements in this area can also provide the largest cost savings. Trim energy use — and save money on your energy bill by:

- **Installing power strips on all equipment,** then powering down at the end of the day and flipping the switch on the strip. This step alone will save an estimated 10-15% of energy use.16
- **Installing energy efficient lighting,** including T5 or T8 fluorescent ballasts and compact fluorescents (CFLs) or light-emitting diodes (LEDs) for lamps.
- **Buying Energy Star-rated equipment,** like computers, copiers and printers.
- **Installing timers on thermostats and motion sensors on lights,** eliminating the energy they use when the office is closed.

**STEP 1:**

Improve office operations.

- **Cut paper use—and costs!** —by moving towards paperless charts, eliminating printing where possible, and printing on both sides of the paper. Invest the savings in buying paper with at least 30% recycled content.
- **Improve indoor air quality** by maintaining green plants — some common varieties like Dracaenas and Golden Pothos are best at the task — and choosing healthier paints, carpets and furniture when remodeling. Toxic volatile organic compounds (VOCs) are emitted from traditional products when they are new… think of fresh paint or “that new car smell”, and look for low-VOC products.
- **Replace your water delivery service with less expensive filtered water coolers** that tap directly into the wall or faucet, eliminating the transportation of bottled water.

**STEP 2:**

Make smart purchases.

Since dental practices use so many disposable items, you can make a big difference by buying:

- **Bulk items,** cutting down on packaging and shipping
- **Products made from biodegradable or recyclable materials**
- **Autoclavable products instead of disposables** when practical (e.g., stainless steel suction tips, prophy angles, prophy cups)
- **Products from eco-friendly suppliers,** like those that have sustainability initiatives, are working to reduce their footprints, donate a portion of profits to environmental nonprofits or that offset carbon emissions from their products and/or shipping.

**STEP 3:**

Money saving tips!
For dental practices, a few easy steps will provide the most bang for your buck.

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16. E Source; Climate Leaders Web Conference, Managing Plug Loads; February 11, 2009
18. Ibid.
Getting Started…
PureLife Can Help

In addition to providing waste solutions, PureLife offers dental supplies with an eco-friendly twist, helping you to make smart purchases.

Offsetting carbon emissions. Since much of a product’s impact comes from the emissions associated with shipping products over long distances, we offset the carbon that comes from shipping — all the way from the manufacturer to your door. We also offset all of the carbon we generate in our office operations, from business travel to electricity use, making us a certified carbon neutral supplier. We do this as part of our commitment to the environment. The costs for these offsets come out of our profits — we never pass these costs on to our customers.

Green products. In addition to offsetting carbon emissions, we work with manufacturers to continuously improve the environmental impact of the products themselves. We look for eco-friendly versions of products, like those made with recycled materials and reduced packaging, and offer them to you at prices equivalent to — or even less than — traditional products found elsewhere. Of course, not every product is available in an eco-friendly version, while also living up to our strict quality standards. So, we still have a ways to go, but our commitment to better products is helping to push the dental supplies industry towards improved environmental stewardship.

What Are Carbon Offsets?
Though it’s always better for the environment to reduce carbon-generating activities first, carbon offsets are designed to help people and businesses negate the impact that their essential activities have on the environment.

When an organization sells an offset credit, the money collected goes towards projects that reduce or absorb carbon from the atmosphere. PureLife offsets its carbon emissions through CarbonFund.org, contributing to renewable energy and reforestation projects.

For more on PureLife’s environmental initiatives, visit PureLifeDental.com

PureLife’s Green Products include...

PureSkin
Our most popular glove is made on a manufacturing line powered by biofuels and comes in packaging with recycled content.

50-Second Solution (BioSurf)
This surface disinfectant kills TB, viruses, bacteria and fungi in 50 seconds, is non-toxic so it’s safe for staff and patients and it doubles as a one-minute immersion disinfectant.

Safe Gauze Green
Made from two natural fibers: USA-grown organic cotton and Lyocell®, which is made from wood pulp certified by the Forest Stewardship Council.

PDT Instruments
All PDT instruments come in 100% recycled content packaging. PDT also accepts all used instruments for recycling or refurbishment, regardless of manufacturer. For every 12 instruments returned, practices receive one free instrument.

Purevac SC
Patented formulation binds small or liquid particles into larger ones, improving mercury capture in amalgam separators.

For more of our green products, visit our website, www.PureLifeDental.com, or call 877-777-3303 to request a catalog.
PureLife is committed to making environmental compliance and leadership worthwhile for dental practices. Designed specifically for busy dentists, our Environmental Leaders Program recognizes the steps you take to improve environmental and public health. Our free program is easy to join and offers some valuable benefits, including:

**AUTOMATIC DISCOUNTS ON PURELIFE’S GREEN COLLECTION**
including popular dental supplies and our comprehensive waste services.

**MARKETING SUPPORT TO HELP YOU SHARE YOUR EFFORTS WITH PATIENTS AND STAFF**
- Framed certificate for your office, communicating your commitment to environmental and public health
- Take-one display for patients, with information on the Environmental Leaders Program
- Recognition as an Environmental Leader on PureLife’s website

**ADDITIONAL SPECIALS AND OFFERS**
just for our Program members.

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**Environmental Leaders Program at a Glance**

<table>
<thead>
<tr>
<th>ECO-PROBLEM ADDRESSED</th>
<th>GREEN COLLECTION DISCOUNTS*</th>
<th>MARKETING SUPPORT</th>
<th>PARTNER ONLY SPECIALS</th>
<th>HOW DO I QUALIFY?</th>
</tr>
</thead>
<tbody>
<tr>
<td>MERCURY</td>
<td>20%</td>
<td>✓</td>
<td>✓</td>
<td>Separate your amalgam! Purchase and install an amalgam separator, either from PureLife or another supplier.</td>
</tr>
<tr>
<td>PHOTO-CHEMICAL WASTE</td>
<td>20%</td>
<td>✓</td>
<td>✓</td>
<td>Improve x-ray processes! Purchase x-ray waste products or switch to a digital x-ray machine.</td>
</tr>
<tr>
<td>CARBON EMISSIONS</td>
<td>20%</td>
<td>✓</td>
<td>✓</td>
<td>Reduce your carbon footprint! Purchase at least 25% of your supplies from a carbon-neutral supplier, like PureLife.</td>
</tr>
</tbody>
</table>

Joining the Program can save a dental practice money on supplies, while generating new business and increasing goodwill among current patients and employees!

Call PureLife today at 877-777-3303 to discuss how the Environmental Leaders Program might benefit your practice.

*Discounts are not cumulative and do not apply to Gloves. Total discount available is 20%. Discounts cannot be combined with any other discounts or promotions.
A DIFFERENT DENTAL DEALER
Protecting Your Health Environment and Bottom Line.

877-777-3303
PureLifeDental.com