

## Dental Materials – Advantages & Disadvantages

### PORCELAIN FUSED TO METAL

This type of porcelain is a glass-like material that is “enameled” on top of metal shells. It is tooth-colored and is used for crowns and fixed bridges

#### Advantages

- Good resistance to further decay if the restoration fits well
- Very durable, due to metal substructure
- The material does not cause tooth sensitivity
- Resists leakage because it can be shaped for a very accurate fit

#### Disadvantages

- More tooth must be removed (than for porcelain) for the metal substructure
- Higher cost because it requires at least two office visits and laboratory services

### GOLD ALLOY

Gold alloy is a gold-colored mixture of gold, copper, and other metals and is used mainly for crowns and fixed bridges and some partial denture frameworks

#### Advantages

- Good resistance to further decay if the restoration fits well
- Excellent durability; does not fracture under stress
- Does not corrode in the mouth
- Minimal amount of tooth needs to be removed
- Wears well; does not cause excessive wear to opposing teeth
- Resists leakage because it can be shaped for a very accurate fit

#### Disadvantages

- Is not tooth colored; alloy is yellow
- Conducts heat and cold; may irritate sensitive teeth
- High cost; requires at least two office visits and laboratory services

## The Facts About Fillings



**DENTAL BOARD OF CALIFORNIA**  
2005 Evergreen Street, Suite 1550, Sacramento, CA 95815  
[www.dbc.ca.gov](http://www.dbc.ca.gov)

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*The Facts About Fillings*

# Dental Materials Fact Sheet

## What About the Safety of Filling Materials?

Patient health and the safety of dental treatments are the primary goals of California's dental professionals and the Dental Board of California. The purpose of this fact sheet is to provide you with information concerning the risks and benefits of all the dental materials used in the restoration (filling) of teeth.

The Dental Board of California is required by law\* to make this dental materials fact sheet available to every licensed dentist in the state of California. Your dentist, in turn, must provide this fact sheet to every new patient and all patients of record only once before beginning any dental filling procedure.

As the patient or parent/guardian, you are strongly encouraged to discuss with your dentist the facts presented concerning the filling materials being considered for your particular treatment.

\* *Business and Professions Code 1648.10-1648.20*

## Allergic Reactions to Dental Materials

Components in dental fillings may have side effects or cause allergic reactions, just like other materials we may come in contact with in our daily lives. The risks of such reactions are very low for all types of filling materials. Such reactions can be caused by specific components of the filling materials such as mercury, nickel, chromium, and/or beryllium alloys. Usually, an allergy will reveal itself as a skin rash and is easily reversed when the individual is not in contact with the material.

There are no documented cases of allergic reactions to composite resin, glass ionomer, resin ionomer, or porcelain. However, there have been rare allergic responses reported with dental amalgam, porcelain fused to metal, gold alloys, and nickel or cobalt-chrome alloys.

If you suffer from allergies, discuss these potential problems with your dentist before a filling material is chosen.

## PORCELAIN (CERAMIC)

Porcelain is a glass-like material formed into fillings or crowns using models of the prepared teeth. The material is tooth-colored and is used in inlays, veneers, crowns and fixed bridges.

### Advantages

- Very little tooth needs to be removed for use as a veneer; more tooth needs to be removed for a crown because its strength is related to its bulk (size)
- Good resistance to further decay if the restoration fits well
- Is resistant to surface wear but can cause some wear on opposing teeth
- Resists leakage because it can be shaped for a very accurate fit
- The material does not cause tooth sensitivity

### Disadvantages

- Material is brittle and can break under biting forces
- May not be recommended for molar teeth
- Higher cost because it requires at least two office visits and laboratory services

## NICKEL OR COBALT-CHROME ALLOYS

Nickel or cobalt-chrome alloys are mixtures of nickel and chromium. They are a dark silver metal color and are used for crowns and fixed bridges and most partial denture frameworks.

### Advantages

- Good resistance to further decay if the restoration fits well
- Excellent durability; does not fracture under stress
- Does not corrode in the mouth
- Minimal amount of tooth needs to be removed
- Resists leakage because it can be shaped for a very accurate fit

### Disadvantages

- Is not tooth colored; alloy is a dark silver metal color
- Conducts heat and cold; may irritate sensitive teeth
- Can be abrasive to opposing teeth
- High cost; requires at least two office visits and laboratory services
- Slightly higher wear to opposing teeth

## Dental Materials – Advantages & Disadvantages

### GLASS IONOMER CEMENT

Glass ionomer cement is a self-hardening mixture of glass and organic acid. It is tooth-colored and varies in translucency. Glass ionomer is usually used for small fillings, cementing metal and porcelain/metal crowns, liners, and temporary restorations.

#### Advantages

- Reasonably good esthetics
- May provide some help against decay because it releases fluoride
- Minimal amount of tooth needs to be removed and it bonds well to both the enamel and the dentin beneath the enamel
- Material has low incidence of producing tooth sensitivity
- Usually completed in one dental visit

#### Disadvantages

- Cost is very similar to composite resin (which costs more than amalgam)
- Limited use because it is not recommended for biting surfaces in permanent teeth
- As it ages, this material may become rough and could increase the accumulation of plaque and chance of periodontal disease
- Does not wear well; tends to crack over time and can be dislodged

### RESIN-IONOMER CEMENT

Resin ionomer cement is a mixture of glass and resin polymer and organic acid that hardens with exposure to a blue light used in the dental office. It is tooth colored but more translucent than glass ionomer cement. It is most often used for small fillings, cementing metal and porcelain metal crowns and liners.

#### Advantages

- Very good esthetics
- May provide some help against decay because it releases fluoride
- Minimal amount of tooth needs to be removed and it bonds well to both the enamel and the dentin beneath the enamel
- Good for non-biting surfaces
- May be used for short-term primary teeth restorations
- May hold up better than glass ionomer but not as well as composite
- Good resistance to leakage
- Material has low incidence of producing tooth sensitivity
- Usually completed in one dental visit

#### Disadvantages

- Cost is very similar to composite resin (which costs more than amalgam)
- Limited use because it is not recommended to restore the biting surfaces of adults
- Wears faster than composite and amalgam

## Toxicity of Dental Materials

### Dental Amalgam

Mercury in its elemental form is on the State of California's Proposition 65 list of chemicals known to the state to cause reproductive toxicity. Mercury may harm the developing brain of a child or fetus.

Dental amalgam is created by mixing elemental mercury (43-54%) and an alloy powder (46-57%) composed mainly of silver, tin, and copper. This has caused discussion about the risks of mercury in dental amalgam. Such mercury is emitted in minute amounts as vapor. Some concerns have been raised regarding possible toxicity. Scientific research continues on the safety of dental amalgam. According to the Centers for Disease Control and Prevention, there is scant evidence that the health of the vast majority of people with amalgam is compromised.

The Food and Drug Administration (FDA) and other public health organizations have investigated the safety of amalgam used in dental fillings. The conclusion: no valid scientific evidence has shown that amalgams cause harm to patients with dental restorations, except in rare cases of allergy. The World Health Organization reached a similar conclusion stating, "Amalgam restorations are safe and cost effective."

A diversity of opinions exists regarding the safety of dental amalgams. Questions have been raised about its safety in pregnant women, children, and diabetics. However, scientific evidence and research literature in peer-reviewed scientific journals suggest that otherwise healthy women, children, and diabetics are not at an increased risk from dental amalgams in their mouths. The FDA places no restrictions on the use of dental amalgam.

### Composite Resin

Some Composite Resins include Crystalline Silica, which is on the State of California's Proposition 65 list of chemicals known to the state to cause cancer.

**It is always a good idea to discuss any dental treatment thoroughly with your dentist.**

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## NOTICE OF PRIVACY PRACTICES

### Protecting Your Confidential Health Information is Important to Us

#### Notice of Privacy Practices

THIS NOTICE DESCRIBES HOW HEALTH INFORMATION ABOUT YOU MAY BE USED AND DISCLOSED AND HOW YOU CAN GET ACCESS TO THIS INFORMATION. PLEASE REVIEW IT CAREFULLY.

#### Our Promise

Dear Patient:

This notice is not meant to alarm you. Quite the opposite! It is our desire to communicate to you that we are taking seriously Federal law (HIPAA—Health Insurance Portability and Accountability Act) enacted to protect the confidentiality of your health information. We never want you to delay treatment because you are afraid your personal health history might be unnecessarily made available to others outside our office.

#### Why do you have a privacy policy? Very good question!

The Federal government legally enforces the importance of the privacy of health information largely in response to the rapid evolution of computer technology and its use in healthcare. The government has appropriately sought to standardize and protect the privacy of the electronic exchange of your health information. This has challenged us to review not only how your health information is used within our computers but also with the Internet, phone, faxes, copy machines, and charts. We believe this has been an important exercise for us because it has disciplined us to put in writing the policies and procedures we follow to protect your health information when we use it.

We want you to know about these policies and procedures which we developed to make sure your health information will not be shared with anyone who does not require it. Our office is subject to State and Federal law regarding the confidentiality of your health information and in keeping with these laws, we want you to understand our procedures and your rights as our valuable patient.

We will use and communicate your HEALTH INFORMATION only for the purposes of providing your treatment, obtaining payment, conducting healthcare operations, and as otherwise described in this notice.

#### How Your HEALTH INFORMATION May be Used to Provide Treatment

We will use your HEALTH INFORMATION within our office to provide you with care. This may include administrative and clinical office procedures designed to optimize scheduling and coordination of care. In addition, we may share your health information with pharmacies or other healthcare personnel providing you treatment.

#### To Obtain Payment

We may include your health information with an invoice used to collect payment for treatment you receive in our office. We may do this with insurance forms filed for you in the mail or sent electronically. We will be sure to only work with companies with a similar commitment to the security of your health information.

#### To Conduct Health Care Operations

Your health information may be used during performance evaluations of our staff. Some of our best teaching opportunities use clinical situations experienced by patients receiving care at our office. As a result, health information may be included in training programs for students, interns, associates, and business and clinical employees. It is also possible that health information will be disclosed during audits by insurance companies or government appointed agencies as part of their quality assurance and compliance reviews. Your health information may be reviewed during the routine processes of certification, licensing or credentialing activities.

#### In Patient Reminders

Because we believe regular care is very important to your health, we will remind you of a scheduled appointment or that it is time for you to contact us and make an appointment. Additionally, we may contact you to follow up on your care and inform you of treatment options or services that may be of interest to you or your family. These communications are an important part of our philosophy of partnering with our patients to be sure they receive the best care. They may include postcards, folding postcards, letters, telephone reminders or electronic reminders such as email (unless you tell us that you do not want to receive these reminders).

#### To Business Associates

We have contracted with one or more third parties (referred to as a business associate) to use and disclose your health information to perform services for us, such as billing services. We will obtain each business associate's written agreement to safeguard your health information.

## NOTICE OF PRIVACY PRACTICES

Federal law generally permits us to make certain uses or disclosures of health information without your permission. Federal law also requires us to list in the Notice each of these categories of uses or disclosures. The listing is below.

#### As Required By Law

We may use or disclose your health information as required by any statute, regulation, court order or other mandate enforceable in a court of law.

#### Abuse or Neglect

We may disclose your health information to the responsible government agency if (a) the Privacy Official reasonably believes that you are a victim of abuse, neglect, or domestic violence, and (b) we are required or permitted by law to make the disclosure. We will promptly inform you that such a disclosure has been made unless the Privacy Official determines that informing you would not be in your best interest.

#### Public Health and National Security

We may be required to disclose to Federal officials or military authorities health information necessary to complete an investigation related to public health or national security. Health information could be important when the government believes that the public safety could benefit when the information could lead to the control or prevention of an epidemic or the understanding of new side effects of a drug treatment or medical device.

#### For Law Enforcement

As permitted or required by State or Federal law, we may disclose your health information to a law enforcement official for certain law enforcement purposes, including, under certain limited circumstances, if you are a victim of a crime or in order to report a crime.

#### Family, Friends and Caregivers

We may share your health information with those you tell us will be helping you with your treatment, medications, or payment. We will be sure to ask your permission first. In the case of an emergency, where you are unable to tell us what you want, we will use our best judgment when sharing your health information only when it will be important to those participating in providing your care.

#### Workers' Compensation Purposes

We may disclose your health information as required or permitted by State or Federal workers' compensation laws.

#### Judicial and Administrative Proceedings

We may disclose your health information in an administrative or judicial proceeding in response to a subpoena or a request to produce documents. We will disclose your health information in these circumstances only if the requesting party first provides written documentation that the privacy of your health information will be protected.

#### Incidental Uses and Disclosures

We may use or disclose your health information in a manner which is incidental to the uses and disclosures described in this Notice.

#### Health Oversight Activities

We may disclose your health information to a government agency responsible for overseeing the health care system or health-related government benefit program.

#### To Avert a Serious Threat to Health or Safety

We may use or disclose your health information to reduce a risk of serious and imminent harm to another person or to the public.

# Protecting Your Confidential Health Information is Important to Us

## To The U.S. Department of Health and Human Services (HHS)

We may disclose your health information to HHS, the government agency responsible for overseeing compliance with federal privacy law and regulations regulating the privacy and security of health information.

### For Research

We may use or disclose your health information for research, subject to conditions. "Research" means systemic investigation designed to contribute to generalized knowledge.

### In Connection With Your Death or Organ Donation

We may disclose your health information to a coroner for identification purposes, to a funeral director for funeral purposes, or to an organ procurement organization to facilitate transplantation of one of your organs.

If applicable State law does not permit the disclosure described above, we will comply with the stricter State law.

### Authorization to Use or Disclose Health Information

We are required to obtain your written authorization in the following circumstances: (a) to use or disclose psychotherapy notes (except when needed for payment purposes or to defend against litigation filed by you); (b) to use your PHI for marketing purposes; (c) to sell your PHI; and (d) to use or disclose your PHI for any purpose not previously described in this Notice. We also will obtain your authorization before using or disclosing your PHI when required to do so by (a) state law, such as laws restricting the use or disclosure of genetic information or information concerning HIV status; or (b) other federal law, such as federal law protecting the confidentiality of substance abuse records. You may revoke that authorization in writing at any time.

## PATIENT RIGHTS

You have the following rights related to your health information.

### Restrictions

You have the right to request restrictions on the use or disclosure of your health information for treatment, payment, or healthcare operations in addition to the restrictions imposed by federal law. Our office is not required to agree to your request, unless (a) you request that we not disclose your PHI to a health insurance company, Medicare or Medicaid for payment or healthcare operations purposes; (b) you, or someone on your behalf, has paid us in full for the healthcare item or service to which the PHI pertains; and (c) we are not required by law to disclose to the insurer, Medicare, or Medicaid the PHI that is the subject of your request, but we will endeavor to honor reasonable requests. We generally are not required to agree to a requested restriction. Our office will honor your request that we not disclose your health information to a health plan for payment or healthcare operation purposes if the health information relates solely to a healthcare item or service for which you have paid us out-of-pocket in full.

## Patient Acknowledgment

Patient Name(s): \_\_\_\_\_

Thank you very much for taking time to review how we are carefully using your health information. If you have any questions we want to hear from you. If not, we would appreciate very much your acknowledging your receipt of our policy by signing this form.

\_\_\_\_\_  
Patient Signature

Date \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

For additional information about the matters discussed in this notice, please contact our Privacy Officer.

## Confidential Communications

You have the right to request that we communicate with you by alternative means or at an alternative location. You may, for example, request that we communicate your health information only privately with no other family members present or through mailed communications that are sealed. We will honor your reasonable requests for confidential communications.

## Inspect and Copy Your Health Information

You have the right to read, review, and copy your health information, including your complete chart, x-rays and billing records. If you would like a copy of your health information, please let us know. We may need to charge you a reasonable, cost-based fee to duplicate and assemble your copy. If there will be a charge, we will first contact you to determine whether you wish to modify or withdraw your request.

## Amend Your Health Information

You have the right to ask us to update or modify your records if you believe your health information records are incorrect or incomplete. We will be happy to accommodate you as long as our office maintains this information. In order to standardize our process, please provide us with your request in writing and describe the information to be changed and your reason for the change.

Your request may be denied if the health information record in question was not created by our office, is not part of our records or if the records containing your health information are determined to be accurate and complete. If we deny your request, we will provide you with a written explanation of the denial.

## Accounting of Disclosures of Your Health Information

You have the right to ask us for a description of how and where your health information was disclosed. Our documentation procedures will enable us to provide information on health information disclosures that we are required to disclose to you. Please let us know in writing the time period for which you are interested. Thank you for limiting your request to no more than six years at a time. We will provide the first accounting during any 12-month period without charge. We may charge a reasonable, cost-based fee for each additional accounting during the same 12-month period. If there will be a charge, the Privacy Official will first contact you to determine whether you wish to modify or withdraw your request.

## Request a Paper Copy of this Notice

You have the right to obtain a copy of this Notice of Privacy Practices directly from our office at any time. Stop by or give us a call and we will mail or email a copy to you.

## Receive Notice of a Security Breach

You have the right to receive notification of a breach of your unsecured health information.

## Changes to the Notice

We are required by law to maintain the privacy of your health information and to provide to you or your personal representative with this Notice of our Privacy Practices. We are required to practice the policies and procedures described in this notice but we do reserve the right to change the terms of our Notice. If we change our privacy practices we will be sure all of our patients receive a copy of the revised Notice.

## Complaints

You have the right to express complaints to us or to the Secretary of Health and Human Services if you believe your privacy rights have been compromised. We encourage you to express any concerns you may have regarding the privacy of your information. We will not retaliate against you for submitting a complaint. Please let us know of your concerns or complaints in writing by submitting your complaint to our Privacy Officer.

Effective Date: 9/23/2013

----- tear here -----  
**ACKNOWLEDGEMENT OF RECEIPT FROM THE OFFICE OF  
The Lodi Dentist**

I acknowledge that I read the **Notice of Privacy Practices and Dental Materials Fact Sheet**

Patient name \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_