Please use Adobe Acrobat on your computer to complete the following forms and either print pages 1-6 to bring with you to your next appointment or ask for a secure email portal to return these forms to us. Page 7-14 are for your reference and do not need to be printed.

# **PATIENT INFORMATION**

IF THIS APPOINTMENT IS FOR YOU			IF THIS APPOINTMENT IS FOR YOUR CHILD			
NAME			NAME			
SPOUSE			ADDRESS			
ADDRESS			CITY	STATE	ZIP	
CITY	STATE	ZIP	HOME PHONE NO.			
HOME PHONE NO.			BIRTHDATE	AGE	MALE / FEMALE	
CELL PHONE NO.		MARITAL STATUS	SCHOOL		, — —	
BIRTHDATE	AGE	MALE / FEMALE				
DRIVER LICENSE		·		AST NAME AND/OR ADDI OURS FILL IN THE LEFT		
		GETTING	TO KNOW YOU			
WHOM CAN WE THA	NK FOR THE REFER	RAL?	PERSON TO CONTACT	IN AN EMERGENCY NOT	LIVING WITH YOU	
YOUR EMAIL ADDRE	SS		PHONE NUMBER			
SHOULD WE CONFIF	RM YOUR APPOINTM TEXT	ENT BY	ADDRESS			
		3112	CITY	STATE	ZIP	
	ACCOUNT INFO	DRMATION		DENTAL INSURAN	ICE	
PERSON FIN	IANCIALLY RESP	ONSIBLE FOR ACCOUNT		PRIMARY CARRIEF	₹	
NAME			POLICYHOLDER'S FULL	NAME		
RELATIONSHIP TO P	ATIENT		INSURANCE COMPANY	INSURANCE COMPANY		
ADDRESS			GROUP NUMBER			
CITY	STATE	ZIP	INSURANCE ID	EMPLOYEE NO.		
PHONE NUMBER			DATE OF BIRTH	DATE EMPLOYE	D	
	YOU			SECONDARY CARRIER		
NAME			POLICYHOLDER'S FULL	POLICYHOLDER'S FULL NAME		
OCCUPATION			INSURANCE COMPANY	INSURANCE COMPANY		
EMPLOYER			GROUP NUMBER			
BUSINESS ADDRESS	3	CITY	INSURANCE ID	EMPLOYEE NO.		
BUSINESS PHONE N	O.	EXT.	DATE OF BIRTH	DATE EMPLOYE	D	
	YOUR SPO	DUSE	ADDITIO	ONAL INSURANCE IN	FORMATION	
NAME				FOR OFFICE USE ONL	Y	
OCCUPATION						
EMPLOYER						
BUSINESS ADDRESS	3	CITY				
BUSINESS PHONE N	0.	EXT.				

#### **CONSENT FOR TREATMENT**

- 1. I hereby authorize the dentist or designed staff to take x-rays, study models, photographs, and any other diagnostic aids deemed appropriate by the dentist to make a thorough diagnosis of my dental needs.
- 2. Upon such diagnosis, I authorize the dentist to perform all recommended treatments mutually agreed upon and the dentist to employ such assistance as required to provide the proper care.
- 3. I agree to the use of anesthetics, sedatives, and other medications as necessary. I fully understand that using anesthetic agents embodies certain risks. I understand that I can ask for a complete explanation of any possible complications.
- 4. I authorize the release of any information concerning my (or my dependent's) health care, advice and treatment provided for the purpose of evaluating and administering claims for insurance benefits.
- 5. I authorize the release of any pertinent information concerning my (or my dependent's) health care and treatment to other dentists or physicians as needed.
- 6. I authorize the payment of insurance benefits directly to the dentist or dental group, otherwise payable to me.
- 7. I agree to be responsible for payment of all services rendered on my behalf or my dependents. I understand that payment is due at the time of service unless other arrangements have been made. In the event payments are not received by agreed upon dates, I understand that a 2.0% late charge (24.0 % APR) or a \$15.00 minimum may be added to my account per month.
- 8. I consent to Dr. Tang's dental office staff using my cell phone number to call or text me regarding appointments and to call regarding treatment, insurance, or financial matters about my account. I understand that I can withdraw my consent at any time or opt out from this automated service.
- 9. I agree to be on time for all my dental appointments and accept that there may be a \$50 service charge per ½ hour of appointment time for broken appointments or cancellations without a full business day (24-hr) notice. For a Monday or Saturday appointment, please call us by Thursday 3 pm for any changes.

Patient Signature	Date	
Parent/Guardian	Relationship to Patient	

PATIENT NAME	DENTAL HISTORY
PATIENT ACCOUNT NUMBER	DENTAL ALERT

Welcome! So that we may provide you with the best possible care, please take a moment to complete the following forms making sure that all questions have been answered to the best of your knowledge. All information will be kept confidential.

your knowledge. All information will be kept confidential.  What is the reason for your visit today?					
leaning?		Last Complete Set of X-rays			
		Address			
describe					
Yes Yes	No D	Have you ever experienced: Clicking or popping of your jaw? TMJ, jaw muscle or facial pain? Does your jaw get tired during dental visits requiring that you take a break? Have you ever had: Orthodontic treatment? Periodontal Treatment? A Sleep Study? A diagnosis of sleep apnea? To use a CPAP machine? A nightguard or other removable appliance? A serious injury to your head or mouth? If yes, please describe	Yes  Yes  O  O  O  O  O  O  O  O  O  O  O  O  O	No D	
Yes		Onno Evaluation.	Yes	No	
			Yes	No	
	res	teaning?  toothpicks, pro  yes No  or preferences	Address  How often do you floss?  toothpicks, proxabrush, etc.)    Clicking or popping of your jaw?   TMJ, jaw muscle or facial pain?   Does your jaw get tired during dental visits requiring that you take a break?   Have you ever had:   Orthodontic treatment?   Periodontal Treatment?   A Sleep Study?   A diagnosis of sleep apnea?   To use a CPAP machine?   A nightguard or other removable appliance?   A serious injury to your head or mouth?   If yes, please describe    Yes No Smile Evaluation:   Are you satisfied with the appearance of your teeth?   Would you like whiter teeth?   Would you like straighter teeth?   Do you have chipped, protruding, or hidden teeth?   Do you have old fillings or old dental work you don't like looking at?   Is there anything else you would like to	Address    How often do you floss?	

PATIENT NAME				MEDICAL HIS	TO	RY
PATIENT ACCOUNT NUMBER		MEDICA	L ALERT			
lace an "x" indicating yes or no for each 1 Have you been under the care of If yes, for what? Physician Name			years?		Yes	No
Address  2 Are you currently taking or have t two years? If yes, please list the on a separate paper.						
3 Have you ever taken IV or oral bi bone metastasis or other bone re						
Actonel (Resdronate), Boniva (Iba 4 Have you had an allergic (or adver If yes, please list:	·					
5 Have you been a patient in the ho	ospital during th	ne past five years?				
6 Indicate which of the following you	u had, or have	at present. Place chec	k either yes or no	o for each of the items below:		
Have you unintentionally gained     Do you have or have you had an     If yes, please list:     I understand the above information	or lost more the y disease, con- on is necessary	an 10 lbs in the past y dition, or problem, not y to provide me with th	ear? listed?	Hepatitis A B C Venereal Disease A.I.D.S. H.I.V. Positive Cold Sores/Fever Blisters Blood Transfusion Bleeding Problem Sickle Cell Anemia Bruise Easily Liver Disease Neurological Disorders Epilepsy or Seizures Fainting or Dizzy Spells Nervous/Anxious Psychiatric/Psychological Car Taking birth control pills?	nner.	
changes in my health or medicati	ons.			to you. I will notify the doctor of an		
			Da	te		
Dr. Tang's Notes  Dentist's Signature			Da	ate		

# **KEITH S. TANG, D.D.S., INC.**

# ACKNOWLEDGEMENT OF RECEIPT OF NOTICE OF PRIVACY PRACTICES

I have received a copy of this office's Notice of Privacy Practices. Please check one option below

	I give my permission to allow Dr. Tang's and his staff to discuss any information about my dental treatment, medical information, or financial matters with my spouse, significant other, or other authorized person.
	I only allow Dr. Tang's and his staff to discuss my dental treatment, medical information, or financial matters with me.
Please Pr	int Name
Signature	
Date	
	For Office Use Only
	nave attempted to obtain written acknowledgement of receipt of our Notice of acy Practices, but acknowledgement could not be obtained because:
	Individual refused to sign
	Communication barriers prohibited obtaining the acknowledgement
	An emergency situation prevented us from obtaining acknowledgement
	Other (Please Specify)

# Patient Acknowledgement of Receipt of Dental Materials Fact Sheet

I acknowledge that I have received from Keith S. Tang, D.D.S.,	Inc. a	сору
of "The Facts About Fillings" dated 5/2004.		

Patient Signature	Date

The following document is the Dental Board of California's Dental Materials Fact Sheet. The Department of Consumer Affairs has no position with respect to the language of this form; and its linkage to the DCA web site does not constitute an endorsement of the content of this document.

# The Dental Board of California Dental Materials Fact Sheet

Adopted by the Board on 5/2004

As required by Chapter 801, Statutes of 1992, the Dental Board of California has prepared this fact sheet to summarize information on the most frequently used restorative dental materials. Information on this fact sheet is intended to encourage discussion between the patient and the dentist regarding the selection of dental material best suited for the patient's dental needs. It is not intended to be a complete guide to dental materials science.

The most frequently used materials in restorative dentistry are amalgam, composite resin, glass ionmer cement, resin-ioner cement, porcelain (ceramic), porcelain-fused to metal, gold alloy (noble) and nickel or cobalt-chrome (base-metal) alloys. Each material has its own advantages and disadvantages, benefits and risks.

The statements made are supported by relevant, credible dental research published mainly between 1993-2001. In some cases, where contemporary research is sparse, we have indicated our best perception based upon information that predates 1993.

The reader should be aware that the outcome of dental treatment or durability of a restoration is not solely a function of the material from which the material was made.

The durability of any restoration is influenced by the dentist's technique when placing the restoration, the ancillary materials used in the procedure, and the patient's cooperation during the procedure. Following restoration of the teeth, the longevity of the restoration will be strongly influenced by the patient's compliance with dental hygiene and home care, their diet and chewing habits.

# Keith S. Tang, DDS, Inc. NOTICE OF PRIVACY PRACTICE

This notice describes how your health information may be used and disclosed and how you can get access to this information. Please review it carefully. The privacy of your health information is important to us.

#### Our Legal Duty

Federal and state laws require us to maintain the privacy of your health information. We are also required to provide this notice about our office's privacy practices, our legal duties and your rights regarding your health information. We are required to follow the practices that are outlined in this notice while it is in effect. This notice takes effect <u>01/01/2020</u> and will remain in effect until we replace it.

We reserve the right to change our privacy practices and the terms of this notice at any time, provided such changes are permitted by applicable law. We reserve the right to make changes in our privacy practices and the new terms of our notice effective for all health information that we maintain, including health information we created or received before we made the changes. Before we make a significant change in our privacy practices, we will change this notice and make the new notice available upon request. For more information about our privacy practices or additional copies of this notice, please contact us (contact information below).

#### Uses and Disclosures of Health Information

We use and disclose health information about you for treatment, payment and health care operations. For example:

#### **Treatment**

We disclose medical information to our employees and others who are involved in providing the care you need. We may use or disclose your health information to another dentist or other health care providers providing treatment that we do not provide. We may also share your health information with a pharmacist in order to provide you with a prescription or with a laboratory that performs tests or fabricates dental prostheses or orthodontic appliances.

#### **Payment**

We may use and disclose your health information to obtain payment for services we provide to you, unless you request that we restrict such disclosure to your health plan when you have paid out-of-pocket and in full for services rendered.

#### **Health Care Operations**

We may use and disclose your health information in connection with our health care operations. Health care operations include, but are not limited to, quality assessment and improvement activities, reviewing the competence or qualifications of health care professionals, evaluating practitioner and provider performance, conducting training programs, accreditation, certification, licensing or credentialing activities.

#### Your Authorization

In addition to our use of your health information for treatment, payment or health care operations, you may give us written authorization to use your health information or to disclose it to anyone for any purpose. If you give us an authorization, you may revoke it in writing at any time. Your revocation will not affect any use or disclosures permitted by your authorization while it is in effect. Unless you give us a written authorization, we cannot use or disclose your health information for any reason except those described in this notice.

#### To Your Family and Friends

We must disclose your health information to you, as described in the Patient Rights section of this notice. You have the right to request restrictions on disclosure to family members, other relatives, close personal friends or any other person identified by you.

#### **Unsecured Email**

We will not send you unsecured emails pertaining to your health information without your prior authorization. If you do authorize communications via unsecured email, you have the right to revoke the authorization at any time.

# Notice of Privacy Practices (continued)

#### **Persons Involved in Care**

We may use or disclose health information to notify, or assist in the notification of (including identifying or locating) a family member, your personal representative or another person responsible for your care, of your location, your general condition or your death. If you are present, then prior to use or disclosure of your health information, we will provide you with an opportunity to object to such uses or disclosures. In the event of your incapacity or emergency circumstances, we will disclose health information based on a determination using our professional judgment disclosing only health information that is directly relevant to the person's involvement in your health care. We will also use our professional judgment and our experience with common practice to make reasonable inferences of your best interest in allowing a person to pick up filled prescriptions, medical supplies, X-rays or other similar forms of health information.

#### **Marketing Health-Related Services**

We may contact you about products or services related to your treatment, case management or care coordination or to propose other treatments or health-related benefits and services in which you may be interested. We may also encourage you to purchase a product or service when you visit our office. If you are currently an enrollee of a dental plan, we may receive payment for communications to you in relation to our provision, coordination or management of your dental care, including our coordination or management of your health care with a third party, our consultation with other health care providers relating to your care or if we refer you for health care. We will not otherwise use or disclose your health information for marketing purposes without your written authorization. We will disclose whether we receive payments for marketing activity you have authorized.

#### **Change of Ownership**

If this dental practice is sold or merged with another practice or organization, your health records will become the property of the new owner. However, you may request that copies of your health information be transferred to another dental practice.

#### Required by Law

We may use or disclose your health information when we are required to do so by law.

#### **Public Health**

We may, and are sometimes legally obligated to, disclose your health information to public health agencies for purposes related to preventing or controlling disease, injury or disability; reporting abuse or neglect; reporting domestic violence; reporting to the Food and Drug Administration problems with products and reactions to medications; and reporting disease or infection exposure. Upon reporting suspected elder or dependent adult abuse or domestic violence, we will promptly inform you or your personal representative unless we believe the notification would place you at risk of harm or would require informing a personal representative we believe is responsible for the abuse or harm. Abuse or Neglect

We may disclose your health information to appropriate authorities if we reasonably believe that you are a possible victim of abuse, neglect or domestic violence or the possible victim of other crimes. We may disclose your health information to the extent necessary to avert a serious threat to your health or safety or the health or safety of others.

#### **National Security**

We may disclose to military authorities the health information of Armed Forces personnel under certain circumstances. We may disclose to authorized federal officials health information required for lawful intelligence, counterintelligence and other national security activities. We may disclose to correctional institutions or law enforcement officials having lawful custody of protected health information of inmates or patients under certain circumstances.

#### **Appointment Reminders**

We may contact you to provide you with appointment reminders via voicemail, postcards or letters. We may also leave a message with the person answering the phone if you are not available.

#### **Sign-In Sheet and Announcement:**

Upon arriving at our office, we may use and disclose medical information about you by asking that you sign an intake sheet at our front desk. We may also announce your name when we are ready to see you.

# **Patient Rights**

#### Access

You have the right to look at or get copies of your health information, with limited exceptions. You may request that we provide copies in a format other than photocopies. We will use the format you request unless we cannot practicably do so. You must make a request in writing to obtain access to your health information. You may obtain a form to request access by contacting our office. We will charge you a reasonable cost-based fee for expenses such as copies and staff time. You may also request access by sending us a letter. If you request copies, there may be a charge for time spent. If you request an alternate format, we will charge a cost-based fee for providing your health information in that format. If you prefer, we will prepare a summary or an explanation of your health information for a fee. Contact us for a full explanation of our fee structure.

#### **Disclosure Accounting**

You have a right to receive a list of instances in which we disclosed your health information for purposes other than treatment, payment, health care operations and certain other activities for the last six years. If you request this accounting more than once in a 12-month period, we may charge you a reasonable cost-based fee for responding to these additional requests.

#### Restriction

You have the right to request that we place additional restrictions on our use or disclosure of your health information. We are not required to agree to these additional restrictions, but if we do, we will abide by our agreement (except in emergency). In the event you pay out-of-pocket and in full for services rendered, you may request that we not share your health information with your health plan. We must agree to this request.

#### **Alternative Communication**

You have the right to request that we communicate with you about your health information by alternative means or to alternative locations. You must make your request in writing. Your request must specify the alternative means or location and provide satisfactory explanation of how payments will be handled under the alternative means or location you request.

#### **Breach Notification**

In the event your unsecured protected health information is breached, we will notify you as required by law. In some situations, you may be notified by our business associates.

#### Amendment

You have the right to request that we amend your health information. (Your request must be in writing, and it must explain why the information should be amended). We may deny your request under certain circumstances.

#### **Questions and Complaints**

If you want more information about our privacy practices or have questions or concerns, please contact us at:

Contact:	Dr. Keith S. Tang	
Telephone:	949 252-1889	Fax: <u>949 252-1142</u>
Email:	Info1@Irvinedds.com	
Address:	3785 Alton Parkway, Irvine, CA 92606	

If you are concerned that we may have violated your privacy rights, or you disagree with a decision we made about access to your health information or in response to a request you made to amend or restrict the use or disclosure of your health information or to have us communicate with you by alternative means or at alternative locations, you may send a written complaint to our office or to the U.S. Department of Health and Human Services, Office of Civil Rights. We will not retaliate against you for filing a complaint.

Keith S. Tang, DDS, Inc. complies with applicable federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability or sex.

#### **English:**

Our dental practice will provide language assistance services free-of-charge to individuals who do not speak English well enough to discuss the dental care we are providing.

#### Spanish:

Nuestro consultorio dental les proporcionará servicios de asistencia lingüística gratuitos a los individuos que no hablen inglés con suficiente fluidez para discutir la atención dental que proporcionamos.

#### Chinese:

我们的牙科业务将为英语不太流利的人士提供免费的语言协助服务,以方便讨论我们提供的牙齿护理服务。

#### Vietnamese:

Thực hành nha khoa của chúng tôi sẽ cung cấp các dịch vụ hỗ trợ ngôn ngữ miễn phí cho những người không có khả năng nói tiếng Anh đủ tốt để thảo luận việc chăm sóc răng miệng mà chúng tôi đang cung cấp.

#### Tagalog:

Ang aming dental na kasanayan ay magbibigay ng walang bayad na mga serbisyong tulong na wika sa mga indibidwal na hindi nakakapagsalita ng maayos na Ingles upang talakayin ang ibinibigay naming dental na pangangalaga.

#### Korean:

저희 치과는 저희가 제공하는 치과 치료에 대해 영어로 논의하기가 불편하신 분들을 위해 무료 언어 지원 서비스를 제공할 것입니다.

#### Armenian:

Մեր ատամնաբուժական պրակտիկան կտրամադրի անվձար լեզվական ծառայություններ բոլոր այն անձանց ովքեր անգլերենին բավարար չեն տիրապետում մեր կողմից տրամադրվող ատամնաբուժական խնամքի շուրջ հարցեր քննարկելու:

#### Persian (Farsi):

به صورت رایگان برای افرادی فراهم میآورد که انگلیسی را با تسلط صحبت نمیکنند تا در مورد مراقبت های بندانی که ارائه میکنیم گفتگو کنند

#### Russian:

Наша стоматологическая клиника бесплатно предоставляет клиентам, которые не достаточно хорошо говорят на английском языке,услуги переводчика, чтобы помочь им обсудить предоставляемую нами стоматологическую помощь.

#### Japanese:

当社の歯科治療では提供している歯科ケアに関して話し合える程度の英語力のない方に無料で言語サポートサービスを提供 していま。

#### Arabici:

لا يجيدون الإنكليزية من أجل مناقشة خدمات العناية بالأسنان التي نقدمها

#### Punjabi:

ਉਰ ਡੈਂਟਲ ਪ੍ਰੈਕਟਿਸ ਵਿਲ ਪ੍ਰੋਵੀਦੇ ਲੈਂਗੂਏਜ ਅੱਸੀਸਟੈਂਸ ਸਰਵਿਸਜ਼ ਫ੍ਰੀ-ਓਫ-ਚਾਰਜ ਤੋਂ ਇੰਡਿਵਿਦੁਲਸ ਹੂ ਦੋ ਨ ਸਪੈੱਕ ਇੰਗਲਿਸ਼ ਵੈੱਲ ਏਨੌਘ ਤੋਂ ਡਿਸਕਸ ਥੇ ਡੈਂਟਲ ਚਾਰੇ ਵੀ ਰੇ ਪੋਵੀਡੀਨਗ.

#### Mon-Khmer:

គ្លីនិកធ្មេញយើងខ្លុំនឹងផ្តល់នូវសេវាជំនួយផ្នែកភាសាដោយឥតគិតថ្លៃជូនដល់អតិថិជនម្នាក់ៗដែលមិនចេះនិយាយភាសាអង់ច្បាស់លាស់ ដើម្បីពិគ្រោះពិភាក្សាគ្នាអំពីបញ្ហាសេវាតំហែទាំធ្មេញដែលយើងខ្ញុំកំពុងផ្តល់ជូន។

#### Hmong:

Ang aming pagsasanay ukol sa ngipin o dental practice ay magbibigay ng libreng mga serbisyong tulong sa mga indibiduwal na hindi masyadong

nakakapagsalita ng Ingles upang talakayin ang pangangalaga sa ngipin na aming ibinibigay.

#### Hindi:

Thai: แนวปฏิบัติด้านทันตกรรมของเราจะให้บริการช่วยเหลือด้านภาษาฟรีแก่บุคคลที่พูดภาษาอังกฤษ ไม่ชำนาญเพียงพอที่จะหารือเกี่ยวกับบริการทันตกรรมของเรา

# **Dental Materials** – Advantages & Disadvantages

# PORCELAIN FUSED TO METAL

This type of porcelain is a glasslike material that is "enameled" on top of metal shells. It is toothcolored 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

#### DENTAL BOARD OF CALIFORNIA

2005 Evergreen Street, Suite 1550, Sacramento, CA 95815 www.dbc.ca.gov

Published by

California Department of Consumer Affairs 5/04

The Facts About Fillings

Reprinted in 2019

# The Facts About Fillings



#### DENTAL BOARD OF CALIFORNIA

2005 Evergreen Street, Suite 1550, Sacramento, CA 95815

www.dbc.ca.gov



# 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.

2

# PORCELAIN (CERAMIC)

Porcelain is a glass-like material formed into fillings or crowns using models of the prepared teeth. The material is toothcolored 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



#### 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.

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

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#### DENTAL AMALGAM FILLINGS

Dental amalgam is a self-hardening mixture of silver-tin-copper alloy powder and liquid mercury and is sometimes referred to as silver fillings because of its color. It is often used as a filling material and replacement for broken teeth.

### Advantages

- Durable; long lasting
- Wears well; holds up well to the forces of biting
- Relatively inexpensive
- Generally completed in one visit
- Self-sealing; minimal-to-no shrinkage and resists leakage
- Resistance to further decay is high, but can be difficult to find in early stages
- Frequency of repair and replacement is low

# Disadvantages

- Refer to "What About the Safety of Filling Materials"
- · Gray colored, not tooth colored
- May darken as it corrodes; may stain teeth over time
- Requires removal of some healthy tooth
- In larger amalgam fillings, the remaining tooth may weaken and fracture
- Because metal can conduct hot and cold temperatures, there may be a temporary sensitivity to hot and cold.
- Contact with other metals may cause occasional, minute electrical flow

The durability of any dental restoration is influenced not only by the material it is made from but also by the dentist's technique when placing the restoration. Other factors include the supporting materials used in the procedure and the patient's cooperation during the procedure. The length of time a restoration will last is dependent upon your dental hygiene, home care, and diet and chewing habits.

#### **COMPOSITE RESIN FILLINGS**

Composite fillings are a mixture of powdered glass and plastic resin, sometimes referred to as white, plastic, or tooth-colored fillings. It is used for fillings, inlays, veneers, partial and complete crowns, or to repair portions of broken teeth.

# Advantages

- Strong and durable
- Tooth colored
- Single visit for fillings
- Resists breaking
- Maximum amount of tooth preserved
- Small risk of leakage if bonded only to enamel
- Does not corrode
- Generally holds up well to the forces of biting depending on product used
- Resistance to further decay is moderate and easy to find
- Frequency of repair or replacement is low to moderate

# Disadvantages

- Refer to "What About the Safety of Filling Materials"
- Moderate occurrence of tooth sensitivity; sensitive to dentist's method of application
- Costs more than dental amalgam
- Material shrinks when hardened and could lead to further decay and/or temperature sensitivity
- Requires more than one visit for inlays, veneers, and crowns
- May wear faster than dental enamel
- May leak over time when bonded beneath the layer of enamel

