

# Welcome!

**Thank you for selecting our dental healthcare team!**

*We will strive to provide you with the best possible dental care. To help us meet all your dental healthcare needs, please fill out this form completely in ink. If you have any questions or need assistance, please ask us – we will be happy to help.*

SSN: \_\_\_\_\_

Date: \_\_\_\_\_

## Patient Information (CONFIDENTIAL)

Name \_\_\_\_\_ Home Phone \_\_\_\_\_ Cell Phone \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

E-Mail \_\_\_\_\_ Birthdate \_\_\_\_\_

Check Appropriate Box  Minor  Single  Married  Divorced  Widowed  Separated  Full time

If Student, Name of School/College \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_  Part time

Patient or Parent/Guardian's Employer \_\_\_\_\_ Work Phone \_\_\_\_\_

Business Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Spouse or Parent/Guardian's Name \_\_\_\_\_ Employer \_\_\_\_\_ Work Phone \_\_\_\_\_

Whom May We Thank for Referring You? \_\_\_\_\_

Person to Contact in Case of Emergency \_\_\_\_\_

## Responsible Party

Name of Person Responsible for this Account \_\_\_\_\_ Relationship to Patient \_\_\_\_\_

Address \_\_\_\_\_ Home Phone \_\_\_\_\_

E-Mail \_\_\_\_\_ Cell Phone \_\_\_\_\_

Driver's License # \_\_\_\_\_ Birthdate \_\_\_\_\_ Financial Institution \_\_\_\_\_

Employer \_\_\_\_\_ Work Phone \_\_\_\_\_ SSN \_\_\_\_\_

Is this Person Currently a Patient in our Office?  Yes  No

For your convenience, we offer the following methods of payment. Please check the option you prefer. Payment in full before appointment.  Cash  Credit Card  VISA  MasterCard  I wish to discuss the office's payment policy.

## Insurance Information

Name of Insured \_\_\_\_\_ Relationship to Patient \_\_\_\_\_

Birthdate \_\_\_\_\_ SSN \_\_\_\_\_ Date Employed \_\_\_\_\_

Name of Employer \_\_\_\_\_ Union or Local # \_\_\_\_\_ Work Phone \_\_\_\_\_

Address of Employer \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Insurance Company \_\_\_\_\_ Group # \_\_\_\_\_ Policy/ID # \_\_\_\_\_

Ins. Co. Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

How Much is your Deductible? \_\_\_\_\_ How Much Have you Used? \_\_\_\_\_ Max. Annual Benefit \_\_\_\_\_

DO YOU HAVE ANY ADDITIONAL INSURANCE?  Yes  No IF YES, COMPLETE THE FOLLOWING:

Name of Insured \_\_\_\_\_ Relationship to Patient \_\_\_\_\_

Birthdate \_\_\_\_\_ SSN \_\_\_\_\_ Date Employed \_\_\_\_\_

Name of Employer \_\_\_\_\_ Union or Local # \_\_\_\_\_ Work Phone \_\_\_\_\_

Address of Employer \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Insurance Company \_\_\_\_\_ Group # \_\_\_\_\_ Policy/ID # \_\_\_\_\_

Ins. Co. Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

How Much is your Deductible? \_\_\_\_\_ How Much Have you Used? \_\_\_\_\_ Max. Annual Benefit \_\_\_\_\_

**SEE BACK PAGE**

**Patient Medical History** Physician \_\_\_\_\_ Phone \_\_\_\_\_ Date of Last Exam \_\_\_\_\_

- |  |   |   |   |
|--|---|---|---|
|  | Yes No  |   |   |
| 1. Are you under medical treatment now?.....   | <input type="checkbox"/> <input type="checkbox"/> | 7. Are you allergic or have you had any reactions to the following? | Yes No  |
| 2. Have you ever been hospitalized for any surgical operation or serious illness within the last 5 years?..... | <input type="checkbox"/> <input type="checkbox"/> | Local Anesthetics (e.g. Novocaine).....                             | <input type="checkbox"/> <input type="checkbox"/> |
| 3. Are you taking any medication(s), including non-prescription medicine, pills, or drugs?.....                | <input type="checkbox"/> <input type="checkbox"/> | Penicillin or other antibiotics.....                                | <input type="checkbox"/> <input type="checkbox"/> |
| 4. Are you taking or have you ever taken medications for:  |   | Sulfa Drugs.....  | <input type="checkbox"/> <input type="checkbox"/> |
| a) Osteoporosis or blood thinners? .....   | <input type="checkbox"/> <input type="checkbox"/> | Barbituates.....  | <input type="checkbox"/> <input type="checkbox"/> |
| b) Weight loss (diet pills), Fen-Phen/Redux?.....  | <input type="checkbox"/> <input type="checkbox"/> | Sedatives.....  | <input type="checkbox"/> <input type="checkbox"/> |
| 5. Have you ever/do you use tobacco?.....  | <input type="checkbox"/> <input type="checkbox"/> | Iodine.....   | <input type="checkbox"/> <input type="checkbox"/> |
| 6. Have you ever/do you use controlled substances?.....  | <input type="checkbox"/> <input type="checkbox"/> | Aspirin.....  | <input type="checkbox"/> <input type="checkbox"/> |
|  |   | Any metals (e.g. nickel, mercury, etc).....                         | <input type="checkbox"/> <input type="checkbox"/> |
|  |   | Latex Rubber.....   | <input type="checkbox"/> <input type="checkbox"/> |
|  |   | Other (please list).....  | <input type="checkbox"/> <input type="checkbox"/> |

\*If yes, please explain: \_\_\_\_\_

8. Women, Are You: \_\_\_\_\_
- a) Pregnant/Think you may be pregnant?  Yes  No    b) Nursing?  Yes  No    c) Taking oral contraceptives?  Yes  No

Do you have or have you ever had any of the following?

Yes No		Yes No		Yes No		Yes No	
High Blood Pressure	<input type="checkbox"/> <input type="checkbox"/>	AIDS or HIV Infection	<input type="checkbox"/> <input type="checkbox"/>	Joint Replacement or Implant	<input type="checkbox"/> <input type="checkbox"/>	Arthritis.....	<input type="checkbox"/> <input type="checkbox"/>
Heart Attack.....	<input type="checkbox"/> <input type="checkbox"/>	Thyroid Problem.....	<input type="checkbox"/> <input type="checkbox"/>	Hepatitis/Jaundice.....	<input type="checkbox"/> <input type="checkbox"/>	Cancer.....	<input type="checkbox"/> <input type="checkbox"/>
Osteoporosis.....	<input type="checkbox"/> <input type="checkbox"/>	Psychiatric Treatment	<input type="checkbox"/> <input type="checkbox"/>	Sexually Transmitted Disease	<input type="checkbox"/> <input type="checkbox"/>	Anemia.....	<input type="checkbox"/> <input type="checkbox"/>
Rheumatic Fever.....	<input type="checkbox"/> <input type="checkbox"/>	Heart Disease.....	<input type="checkbox"/> <input type="checkbox"/>	Stomach Troubles/Ulcers.....	<input type="checkbox"/> <input type="checkbox"/>	Hemophilia.....	<input type="checkbox"/> <input type="checkbox"/>
Fainting/Seizures.....	<input type="checkbox"/> <input type="checkbox"/>	Cardiac Pacemaker...	<input type="checkbox"/> <input type="checkbox"/>	Chest Pains.....	<input type="checkbox"/> <input type="checkbox"/>	Leukemia.....	<input type="checkbox"/> <input type="checkbox"/>
Asthma.....	<input type="checkbox"/> <input type="checkbox"/>	Heart Murmur.....	<input type="checkbox"/> <input type="checkbox"/>	Sickle Cell Disease.....	<input type="checkbox"/> <input type="checkbox"/>	Tuberculosis....	<input type="checkbox"/> <input type="checkbox"/>
Low Blood Pressure	<input type="checkbox"/> <input type="checkbox"/>	Angina.....	<input type="checkbox"/> <input type="checkbox"/>	Stroke.....	<input type="checkbox"/> <input type="checkbox"/>	Glaucoma.....	<input type="checkbox"/> <input type="checkbox"/>
Epilepsy/Convulsions	<input type="checkbox"/> <input type="checkbox"/>	Heart Trouble.....	<input type="checkbox"/> <input type="checkbox"/>	Recent Weight Loss.....	<input type="checkbox"/> <input type="checkbox"/>	Swollen Ankles	<input type="checkbox"/> <input type="checkbox"/>
Diabetes.....	<input type="checkbox"/> <input type="checkbox"/>	Mitral Valve Prolapse	<input type="checkbox"/> <input type="checkbox"/>	Hay Fever/Allergies.....	<input type="checkbox"/> <input type="checkbox"/>	Other.....	<input type="checkbox"/> <input type="checkbox"/>
Kidney Disease.....	<input type="checkbox"/> <input type="checkbox"/>	Frequently Tired.....	<input type="checkbox"/> <input type="checkbox"/>	Radiation Therapy.....	<input type="checkbox"/> <input type="checkbox"/>	_____	
Liver Disease.....	<input type="checkbox"/> <input type="checkbox"/>	Emphysema.....	<input type="checkbox"/> <input type="checkbox"/>	Respiratory Problems.....	<input type="checkbox"/> <input type="checkbox"/>	_____	

**Patient Dental History** Name of Previous Dentist and Location \_\_\_\_\_ Date of Last Exam \_\_\_\_\_

- |  |   |  |   |
|--|---|--|---|
|  | Yes No  |  | Yes No  |
| 1. Do your gums bleed while brushing or flossing?.....               | <input type="checkbox"/> <input type="checkbox"/> | 8. Do you have frequent headaches?.....  | <input type="checkbox"/> <input type="checkbox"/> |
| 2. Are your teeth sensitive to hot or cold liquids/foods?.....       | <input type="checkbox"/> <input type="checkbox"/> | 9. Do you clench or grind your teeth?.....   | <input type="checkbox"/> <input type="checkbox"/> |
| 3. Are your teeth sensitive to sweet or sour liquids/foods?.....     | <input type="checkbox"/> <input type="checkbox"/> | 10. Do you bite your lips or cheeks frequently?.....   | <input type="checkbox"/> <input type="checkbox"/> |
| 4. Do you feel pain to any of your teeth?.....                       | <input type="checkbox"/> <input type="checkbox"/> | 11. Have you ever had any difficult extractions in the past?.....                                    | <input type="checkbox"/> <input type="checkbox"/> |
| 5. Do you have any sores or lumps in or near your mouth?.....        | <input type="checkbox"/> <input type="checkbox"/> | 12. Have you ever had any prolonged bleeding following extractions?.....                             | <input type="checkbox"/> <input type="checkbox"/> |
| 6. Have you had any head, neck, or jaw injuries?.....                | <input type="checkbox"/> <input type="checkbox"/> | 13. Have you had any orthodontic treatment?.....   | <input type="checkbox"/> <input type="checkbox"/> |
| 7. Have you ever experienced any of the follow problems in your jaw? |   | 14. Do you wear dentures or partials?.....   | <input type="checkbox"/> <input type="checkbox"/> |
| Clicking?.....   | <input type="checkbox"/> <input type="checkbox"/> | If yes, date of placement.....   |   |
| Pain (joint, ear, side of face)?.....                                | <input type="checkbox"/> <input type="checkbox"/> | 15. Have you ever received oral hygiene instructions regarding the care of your teeth and gums?..... | <input type="checkbox"/> <input type="checkbox"/> |
| Difficulty in opening or closing?.....                               | <input type="checkbox"/> <input type="checkbox"/> | 16. Do you like your smile?.....   | <input type="checkbox"/> <input type="checkbox"/> |
| Difficulty in chewing?.....  | <input type="checkbox"/> <input type="checkbox"/> |  |   |

**Authorization and Release** I certify that I have read and understand the above information to the best of my knowledge. The above questions have been accurately answered. I understand that providing incorrect information can be dangerous to my health. I authorize the dentist to release any information including the diagnosis and the records of any treatment or examination rendered to me or my child during the period of such Dental care to third party payors and/or health practitioners. I authorize and request my insurance company to pay directly to the dentist or dental group insurance benefits otherwise payable to me. I understand that my dental insurance carrier may pay less than the actual bill for services. I agree to be responsible for payment of all services rendered on my behalf or my dependents. If I ever have any change in my health or if my medications change, I will, without fail, inform the doctor at my next appointment. I acknowledge I have received a copy of the Dental Materials Fact Sheet dated October 2019.

X \_\_\_\_\_ Date \_\_\_\_\_  
Signature of patient (or parent/guardian if minor)

X \_\_\_\_\_ Date \_\_\_\_\_  
Signature of dentist

# INFORMED CONSENT

## 1. WORK TO BE DONE

I understand that the following treatments may be performed on me as part of my dental treatments: Fillings, Bridges, Crowns, Extractions, Impacted Teeth Removal, Root canals, Dentures, Partial Dentures, Periodontal Treatments and possible other dental treatments.

## 2. FILLINGS

Fillings are procedures in which the dentist removes decayed tooth structure of a faulty restoration and replaces it with composite or silver Amalgam fillings. I understand that these procedures can cause the teeth to be sensitive to hot and cold as well as chewing. The majority of the time, these sensitivities are temporary and they will go away within one (1) or two (2) weeks. However, there are times that due to the depth of the filling in the tooth, the pulp or the nerve of the tooth becomes irreversibly sensitive. In these cases, the tooth will need to be treated for root canal therapy and might possibly require a post and crown to be fully restored. I understand that the dentist can not guarantee that the teeth receiving fillings will not need to receive the above mentioned additional procedures and that I will be responsible for payments for any additional treatments needed to restore the teeth, if the initial filling procedure does not correct the problem.

## 3. DRUG AND MEDICATIONS

I understand that antibiotics, analgesics and other medications can cause allergic reactions causing redness and swelling of tissues, pain, vomiting and/or anaphylactic shock (sever allergic reaction).

## 4. CHANGES IN TREATMENT PLAN

I understand that during treatment it may be necessary to change procedures because of conditions found while working on the teeth were not discovered during examination. I give my permission to the Dentist to make those changes as necessary.

## 5. REMOVAL OF TEETH

Alternatives to removal have been explained to me (root canal therapy, crowns and periodontal surgery, etc.) and I authorize the Dentist to remove the teeth outlined in the treatment plan and any others necessary. I understand removing teeth does not always remove all the infection, if present, and it may be necessary to have further treatment. I understand the risk involved in having teeth removed, some of which are pain, swelling, spread of infection, dry socket, loss of feeling in my teeth, lips, tongue and surround tissue (Parasthesia) that can last for an indefinite period of time (day or months) or fractured jaw. I understand I may need further treatment by a specialist or even hospitalization if complications arise during or following treatment.

## 6. ANESTHESIA

I realize the risks involved in receiving a local anesthetic, some of which are: partial facial paralysis, inflamed tissue, adverse reactions to drugs causing cardiac arrest, miscarriage, hemorrhage, nerve damage and/or numbness.

## 7. CROWNS, BRIDGES AND CAPS

I understand that sometimes it is not possible to match the color of natural teeth exactly with artificial teeth. I further understand that I may be wearing temporary crowns, which may come off easily and that I must be careful to ensure that they are kept on until the permanent crowns are delivered, and that if I don't have the permanent crown(s) placed permanent serious damage or loss of the tooth/teeth involved may ensue, and that if I delay placement I may cause the teeth involved to move so that the permanent crown no longer will fit properly.

## 8. DENTURES- COMPLETE OR PARTIAL

I realize that full or partial dentures are artificial, constructed of plastic, metal and/or porcelain. The problems of wearing these appliances have been explained to me including looseness, soreness, and possible

breakage, and relining due to tissue and bone change. I understand the wearing of dentures is difficult. Sore spots, altered speech and difficulty in eating are common problems. Immediate dentures (placement of denture immediately after extractions) may be painful. Immediate dentures may require considerable adjusting and several relines. A permanent reline will be needed later. This is not included in the denture fee. I understand that it is my responsibility to return for delivery of the dentures. I understand that failure to keep my delivery appointment may result in poorly fitted dentures. If a remake is required due to my delays of more than 30 days there will be additional charges.

#### **9. ENDODONTIC TREATMENT (ROOT CANAL)**

I realize there is no guarantee that root canal treatment will save my tooth, and that complications can occur from the treatment, and that occasionally metal objects are cemented in the tooth or extend through the root which does not necessarily effect the success of the treatment, and that this treatment often requires multiple visits and that I can cause serious damage or loss of the tooth/teeth involved if I do not complete the prescribed treatment.

#### **10. PERIODONTAL LOSS (TISSUE AND BONE)**

I understand that I have a serious condition, causing gum and bone inflammation or loss and that it can lead to the loss of my teeth. The alternative treatment plans have been explained to me, including gum surgery, replacements and/or extractions. I understand that undertaking any dental procedures may have a future adverse effect on my periodontal condition.

#### **11. a. ARBITRATION**

Arbitration is the final process for the resolution of any dispute or controversy between a patient, or a personal representative of the patient, as the case may be, and Jeffrey Phen D.D.S. concerning the quality of patient services provided to the patient under this agreement for any dispute or controversy concerning the construction, interpretation, performance or breach of this agreement. By entering into this agreement, the patient agrees that such disputes shall be submitted to binding arbitration under the appropriate rules of the American Arbitration Association (AAA).

**I.** Patient understands and agrees that any and all disputes between patient and Jeffrey Phen D.D.S. or its providers shall be resolved by submission to binding arbitration conducted by the American Arbitration Association (AAA). Such disputes or controversies include, but are not limited to, complaints concerning the quality, necessity or outcome of services provided pursuant to this Informed Consent Form, as well as the construction, interpretation, performance or breach of the terms of this Informed Consent Form. Patient further recognizes that by consenting to binding arbitration, patient is giving up the right to have such disputes decided in a court of law and/or before a jury.

**II.** A declaration of a court or other tribunal of competent jurisdiction that any portion of this agreement to arbitrate is void or unenforceable shall not render any other provision hereof void or unenforceable.

#### **b. INITIATION OF ARBITRATION**

Arbitration can be initiated by filing a demand for arbitration with the AAA, location at 225 Bush Street, 18th floor, San Francisco, CA. 94104-4207, Telephone number (415)981-3901. A demand form may be obtained from the AAA.

#### **c. COSTS**

In all arbitration matters submitted to the AAA, the party initiating demand for the arbitration shall advance all administration fees connected therewith. If the patient prevails in arbitration, the patient may be entitled to reimbursement of costs including reasonable attorney's fees incurred in connection with the arbitration proceedings. Any such award of cost shall be made at the discretion of the arbitrator.

#### **d. LOCATION**

Arbitration proceedings shall occur in the county where the patient's treatment was performed,

unless all parties to the arbitration otherwise mutually agree in writing.

**e. FORMS OF DECISION**

The parties agree that the arbitrators shall issue a written opinion. The award of the arbitrators shall be binding and may be enforced in any court having jurisdiction thereof by filing a petition of enforcement of said award. The arbitrator’s award shall be accompanied by a written decision explaining the facts and reasons upon which the award is based, including the findings of fact and conclusions of law made and reached by the arbitrator.

I hereby request and authorize the dentist, and their staff, to perform dental work upon me for the purpose of attempting to improve my appearance, function and the health of my mouth, teeth, bone and tissue, as explained above.

The effect and nature of the proceeding to be performed, and the risks involved, as well as the possible alternative methods of treatment have been fully explained to me.

I also authorize the operating Dentist and Assistants to perform any other procedure which they may deem necessary or desirable in attempting to improve the condition stated on the diagnostic treatment form, or treat unhealthy or unforeseen conditions that may be encountered during the operation.

I understand that regardless of any dental insurance coverage I may have, I am responsible for payment of dental fees. I agree to pay any attorney’s fees, collection fees, or court costs that may be incurred to satisfy this obligation.

I know that the practice of Dentistry and surgery is not an exact science and that therefore reputable practitioners cannot properly guarantee results. I acknowledge that no guarantee or assurance has been made by anyone regarding the treatment which I have herein requested and authorized.

Alternatives and possible bad reactions have been explained to me in detail. Complications, such as infection, hemorrhage and/or bleeding, scarring, contraction, possible deformities, prolonged healing time over the estimate, reaction to any drugs before, during and after surgery, numbness or itching of the tongue, lip, teeth, tissues (Parasthesia), fractured jaw, Temporo mandibular joint (TMJ) Complications, which could cause localized and systemic pain requiring future treatments including joint surgery, etc., have been clearly explained to me.

**I CERTIFY THAT I HAVE READ AND FULLY UNDERSTAND THE ABOVE CONSENT TO DENTAL TREATMENT AND THAT THE EXPLANATIONS THEREIN REFERRED TO WERE MADE. ANYTHING I DID NOT UNDERSTAND HAS BEEN EXPLAINED TO ME. NOTICE: BY SIGNING THIS CONTRACT YOU ARE AGREEING TO HAVE ANY ISSUE OF MEDICAL MALPRACTICE DECIDED BY NEUTRAL BINDING ARBITRATION AND YOU ARE GIVING UP YOUR RIGHT TO A JURY OR COURT TRIAL. SEE ARTICLE 11 OF THIS CONTRACT.**

Signature: \_\_\_\_\_ Witness: \_\_\_\_\_ Doctor: \_\_\_\_\_  
(Patient or Legal Representative)

Date: \_\_\_\_\_ Date: \_\_\_\_\_ Date: \_\_\_\_\_

## 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

### DENTAL BOARD OF CALIFORNIA

1432 Howe Avenue • Sacramento, California 95825

[www.dbc.ca.gov](http://www.dbc.ca.gov)

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5/04

### *The Facts About Fillings*

Reprinted in 2019

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# 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.**



### 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

**T**he 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

