

Welcome!

We are delighted that you have chosen our office to care for your dental needs. You have probably noticed that we are different from the average dental practice. When you visit our office you will find a **unique, friendly, and relaxing environment**. All of our treatment is designed to be **painless, high quality, and to exceed all of your expectations**. We use the most recent technology and techniques our industry has to offer. It is for these reasons that we always tag our dental practice as **"Exceptional Dentistry"**. Our greatest strength lies not in what you see, but in how you are treated.

The services we can offer to you include:

- ❖ **GENERAL DENTISTRY:** these are the services a patient would expect to see in an average dental office such as; cleanings, fillings, root canal treatment, and extractions. We excel in this area and have a bias to providing **comfortable and predictable** services.
- ❖ **COSMETIC DENTISTRY:** including tooth colored fillings, ZOOM tooth whitening, porcelain veneers & crowns, and EXTREME MAKEOVERS. We use the best materials and techniques available to get the best result.
- ❖ **ORTHODONTICS:** We can provide our patients with several options including; Invisalign, Orthoclear, clear/tooth color brackets, metal brackets, and traditional braces. These options can be designed for each patient's individual needs in order to achieve optimum results.
- ❖ **IMPLANT DENTISTRY:** To help replace any missing teeth or stabilize loose dentures. Dental implants are becoming the new alternative option in tooth replacement.

**By filling out the enclosed questionnaire, we can find out what areas you are interested in.** Ultimately, whatever treatment you receive is totally your choice. During the examination phase, we are here to show you what all the possibilities are. So that we may better prepare for your visit, **please fill out the questionnaire and bring it to your appointment or you can email it back to us.** And remember: if you have **any questions or concerns** at all, please don't hesitate to bring it to our attention.

Sincerely,

Randall A. Segovia, DDS

**Directions To The Office:**

- 1. From the 78 west take the El Camino Real exit and go right. If you are taking the 78 east then go left at the exit.**
- 2. Go left on Via Las Rosas.**
- 3. Go right on Geneva.**
- 4. Go up the hill and we are located on the right side in the El Camino Professional Center.**

**If you need any assistance, please call us at 760-966-7490 or 760-630-6354**

**Personal Information**

Mr. Mrs. Miss \_\_\_\_\_ Birthdate \_\_\_\_\_ Age \_\_\_\_\_  
 Home Phone Number \_\_\_\_\_ Cellular Number \_\_\_\_\_ Alternate Number \_\_\_\_\_  
 Parent/Guardian/Person Financially Responsible \_\_\_\_\_ Relationship \_\_\_\_\_  
 Home Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Occupation \_\_\_\_\_ Employer \_\_\_\_\_ Phone Number \_\_\_\_\_  
 Spouse Name \_\_\_\_\_ Birthdate \_\_\_\_\_  
 Emergency Contact \_\_\_\_\_ Relationship \_\_\_\_\_ Phone Number \_\_\_\_\_

**Please Answer All Questions**

Are you having any areas of concern? \_\_\_\_\_  
 In your opinion, tell us what you think the present state of the health of your mouth is? \_\_\_\_\_

Do you have any family or friends that already come to our office? \_\_\_\_\_  
 What do you know about our office and what expectations do you have? \_\_\_\_\_

How healthy do you want us to get your mouth? “Don’t really care” “Average” “The best it can be”  
 Should you need treatment, at what point would you like us to address it?  
 “When my tooth hurts or breaks” “When something is worsening” “When something isn’t ideal”  
 What quality of dentistry do you want us to recommend? “Just Patch it” “Average” “Ideal/ The Best”  
 We have the ability to look at your mouth from different perspectives. What combination of these would you like us to use for you? Circle all that apply.  
 “For **GENERAL** dental care” “For **COSMETIC** dental care” “For **ORTHODONTIC** dental care”  
 How do you feel about the appearance of your face and smile? \_\_\_\_\_  
 When was your last dental visit? \_\_\_\_\_  
 Has fear ever been an issue for you in a dental office? \_\_\_\_\_  
 Is time a factor in getting your dental work done? \_\_\_\_\_  
 Is the cost of dental treatment a concern for you? \_\_\_\_\_  
 What can we do to help you with this? \_\_\_\_\_  
 Is there any additional information that you would like to let us know? \_\_\_\_\_

**Health and Dental History**

Physician’s Name \_\_\_\_\_ Phone Number \_\_\_\_\_  
 Are you taking any medication now, including regular does of aspirin? Yes No  
 List Medications \_\_\_\_\_  
 Are you allergic to penicillin or any other medication? Yes No  
 Please List \_\_\_\_\_  
 Have you been under the care of a medical doctor during the past two years? Yes No  
 If so, for what \_\_\_\_\_  
 Have you seen an ENT (ear, nose, and throat doctor)? Yes No Name \_\_\_\_\_  
 Have you seen a Chiropractor? Yes No Name \_\_\_\_\_  
 Have you seen a Neurologist? Yes No Name \_\_\_\_\_  
 Have you had braces? Yes No Name \_\_\_\_\_

**Indicate which of the following you have had, or have at present. Please circle yes or no to each item.**

|                            |     |    |                           |     |    |
|----------------------------|-----|----|---------------------------|-----|----|
| Heart Concerns             | Yes | No | Headaches                 | Yes | No |
| Congenital Heart Disease   | Yes | No | Jaw Pain                  | Yes | No |
| Heart Murmur               | Yes | No | Jaw Popping               | Yes | No |
| Mitral Valve Prolapse      | Yes | No | Congested Ears            | Yes | No |
| Artificial Heart Valve     | Yes | No | Limited Opening           | Yes | No |
| Pacemaker                  | Yes | No | Ringing Ears              | Yes | No |
| High Blood Pressure        | Yes | No | Dizziness                 | Yes | No |
| Stroke                     | Yes | No | Grinding                  | Yes | No |
| Liver disease/ Jaundice    | Yes | No | Clenching                 | Yes | No |
| Artificial Joints          | Yes | No | Loose Teeth               | Yes | No |
| Kidney Trouble             | Yes | No | Difficulty Chewing        | Yes | No |
| Diabetes                   | Yes | No | Difficulty Swallowing     | Yes | No |
| Hepatitis                  | Yes | No | Facial Pain               | Yes | No |
| Neurological Disorders     | Yes | No | Sensitive Teeth           | Yes | No |
| Radiation/ Chemotherapy    | Yes | No | Neck Ache                 | Yes | No |
| Epilepsy/ Seizures         | Yes | No | Bell's Palsy              | Yes | No |
| AIDS/HIV                   | Yes | No | Trigeminal Neuralgia      | Yes | No |
| Psychiatric/ Psychological | Yes | No | Tingling in Arms/ Fingers | Yes | No |
| Latex Sensitivity          | Yes | No | Insomnia/ Frequent Waking | Yes | No |

Have you ever taken Fen-Phen?    Yes    No  
 Does floss shred when you use it?    Yes    No  
 Do your gums bleed?    Yes    No  
 Do you smoke or chew tobacco?    Yes    No  
 Do you have or have you had any disease, condition, or problem not listed? \_\_\_\_\_  
 Have you ever had any cosmetic procedure? \_\_\_\_\_  
     If So, for what? \_\_\_\_\_  
 Women: Are you pregnant? \_\_\_\_\_ Nursing? \_\_\_\_\_ Taking Birth Control? \_\_\_\_\_

I understand the above information is necessary to provide me with dental care in a safe and efficient manner. I have answered all the questions to the best of my knowledge? Should further information be needed, you have my permission to ask the respective health care provider who may release such information to you. I will notify the doctor of any change in my health or medication

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

Social Security Number \_\_\_\_\_ Birthdate \_\_\_\_\_

**Email Address** \_\_\_\_\_

For more information, please visit our website at [www.cosmeticdentistoceanside.com](http://www.cosmeticdentistoceanside.com)

# GENERAL DENTISTRY INFORMED CONSENT

Patient \_\_\_\_\_

## WORK TO BE DONE.

I understand that I am having the following treatment done: Fillings\_\_\_\_\_, Crowns\_\_\_\_\_, Root Canal\_\_\_\_\_, Dentures/Partials\_\_\_\_\_, Exam\_\_\_\_\_, X-rays\_\_\_\_\_, Prophy\_\_\_\_\_, Other\_\_\_\_\_.

(Pt Initials\_\_\_\_\_)

## DRUGS AND MEDICATION.

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

(Pt Initials\_\_\_\_\_)

## CHANGES IN TREATMENT PLAN.

I understand that during treatment it may be necessary to change or add procedures because of conditions found while working on the teeth that were not discovered during examinations. For example, root canal therapy following routine restorative procedures. I give my permission to the Dentist to make any/all changes and additions as necessary.

(Pt Initials\_\_\_\_\_)

## REMOVAL OF TEETH.

Alternatives to removal have been explained to me (root canal therapy, crowns, periodontal surgery, implants, etc.) I authorize the Dentist to remove the following teeth\_\_\_\_\_ and any others necessary for reasons in paragraph #3. I understand removing teeth does not always remove all the infection, if present, and it may be necessary to have further treatment. I understand that some more common of the risks involved in having teeth removed include pain, swelling, spread or development of infection, injury to adjacent teeth an/or restorations in other teeth, dry socket, loss of feeling and sensation in teeth, lips, tongue and surrounding tissue (nerve damage) which can be temporary or permanent, fracture of the jaw and difficulty opening the jaw. I understand that I may need further treatment by a specialist or even hospitalization if complications arise during or following treatment, the cost of which is my responsibility.

(Pt Initials\_\_\_\_\_)

## CROWNS, BRIDGES, CAPS, VENEERS AND BONDING.

I understand that some of the risks of this procedure include, but are not limited to, abscess requiring additional treatment and recurrent decay requiring further treatment. 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. I realize that the final opportunity to make changes in my new crown, bridge, or cap (including shape, fit size, and color) will be before cementation. It is also my responsibility to return for permanent cementation within 30 days from tooth preparation. Excessive delays may allow for tooth movement, recurrent cavities, gum disease, and may loose abutment teeth. This may necessitate a remake of crowns, bridges, veneers or caps. I understand there will be additional charges for remakes due to my delaying permanent cementation.

(Pt Initials\_\_\_\_\_)

## 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, which include, but are not limited to, perforations of the tooth and root, and breakage of dental instruments in the canal of the tooth. I also understand that occasionally root canal filling material may extend through the tooth which does not necessarily effect the success of the treatment. I understand that endodontic files and reamers are very fine instruments and stresses vented in their manufacture can cause them to separate during use. I understand that occasionally additional surgical procedures may be necessary following root canal therapy (apicoectomy). I understand that the tooth may be lost in spite of all effort to save it. I also understand that additional risks include, but are not limited to, root fractures, undiagnosed ancillary canals and perforations.

(Pt Initials\_\_\_\_\_)

## PERIODONTAL TREATMENT (TISSUE AND BONE).

I understand that I have a serious condition, causing gum and bone inflammation or loss that can lead to the loss of my teeth. Alternative treatment plans have been explained to me including, but not limited to, gum surgery, replacements and/or extractions. I understand that undertaking any dental procedures may have a future adverse effect on my periodontal condition.

(Pt Initials\_\_\_\_\_)

## FILLINGS.

I understand that care must be exercised in chewing on fillings especially during the first 24 hours to avoid breakage. I understand that a more extensive filling than originally diagnosed may be required due to additional decay. I understand the sensitivity is a common symptom after placement of a new filling. I also understand that if it is determined during the procedure that the decay is more extensive than first anticipated, additional treatment, including but not limited to, root canals or extractions may be necessary. I also understand that the risks include, but are not limited to, abscess, infection and tooth fracture.

(Pt Initials\_\_\_\_\_)

## DENTURES, COMPLETE OR PARTIAL.

I understand the wearing of dentures is difficult. Sore spots, altered speech, and difficulty in eating are common problems. Immediate denture (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 does not include 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 decays of more than 30 days, there will be additional charges.

Pt Initials\_\_\_\_\_)

I understand that dentistry 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 dental treatment, which I have requested and authorized. I understand that no other Dentist is responsible for my dental treatment.

I hereby authorize the doctors or dental auxiliaries to proceed with and perform the dental restorations and treatments as explained to me. I understand that this is only an estimate and subject o modification depending on unforeseen or undiagnosed circumstances that may arise during the course of treatment. 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, as well as attorney's fees and costs incurred by the dentist if I unsuccessfully assert a claim against any dentists for treatment I received in this office.

Signature of Patient: \_\_\_\_\_ Date \_\_\_\_\_

Signature of Doctor : \_\_\_\_\_ Date \_\_\_\_\_

Dear Guests,

We are delighted to welcome you to our practice and are pleased that you chose us to serve your dental needs!

As a courtesy to you, we will file and submit all insurance claims on your behalf. We request that you pay your estimated co-payment at the time of service.

**Estimated insurance benefits are subject to actual payment by you're insurance carrier. If there are any remaining balances after 90 days, you are solely responsible for them.**

**Dental Insurance Company**\_\_\_\_\_

**Insurance Company Phone Number**\_\_\_\_\_

**Subscriber ID Number**\_\_\_\_\_

**Group Number**\_\_\_\_\_

**Subscribers Date of Birth** \_\_\_\_\_

X \_\_\_\_\_  
*Patient signature*

\_\_\_\_\_  
*Date*

If you are ever unable to make an appointment you have scheduled with us, please notify us at least 24 hours in advance. We would be glad to reschedule the appointment at a more convenient time, if necessary. If however an appointment is missed and/ or cancelled without a 24-hour notice, we reserve the right to charge you a **\$50.00 fee per hour of scheduled appointment time.**

We look forward to seeing you on a regular basis!

X \_\_\_\_\_  
*Patient signature*

\_\_\_\_\_  
*Date*

# NOTICE OF PRIVACY POLICY

**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.**

**THE PRIVACY OF YOUR HEALTH INFORMATION IS IMPORTANT TO US.**

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## **OUR LEGAL DUTY**

We are required by applicable federal and state law to maintain the privacy of your health information. We are also required to give you this Notice about our privacy practices, our legal duties, and your rights concerning your health information. We must follow the privacy practices that are described in this Notice while it is in effect. This Notice is currently in effect 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 the 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.

You may request a copy of our Notice at any time. For more information about our privacy practices, or for additional copies of this Notice, please contact us using the information listed on this Notice.

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## **USES AND DISCLOSURES OF HEALTH INFORMATION**

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

**Treatment:** We may use or disclose your health information to a physician or other healthcare provider providing treatment to you.

**Payment:** We may use and disclose your health information to obtain payment for services we provide to you.

**Healthcare Operations:** We may use and disclose your health information in connection with our healthcare operations. Healthcare operations included quality assessment and improvement activities, reviewing the competence or qualifications of healthcare professionals, evaluation 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 healthcare 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 was 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. We may disclose your health information to a family member, friend or other person to the extent necessary to help with your healthcare or with payment for your healthcare, but only if you agree that we may do so.

**Persons Involved In Care:** We may use or disclose health information to notify or assist in the notification of (including identifying or location) a family member, your personal representative or another person responsible for your care, of your location, your general condition, or 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 healthcare. We will also use our professional judgment and our experience with common practice to make reasonable inferences of your best interest in following a person to pick up filled prescriptions, medical supplies, x-rays, or other similar forms of health information.

**Marketing Health-Related Services:** We will not use your health information for marketing communications without your written authorization.

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

**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 any other crimes. We may disclose to authorized federal officials health information required for lawful intelligence, counterintelligence, and other national

security activities. We may disclose to correctional institution or law enforcement official having lawful custody of protected health information of inmate or patient under certain circumstances.

**Appointment Reminders:** We may use or disclose your health information to provide you with appointment reminders (such as voicemail messages, postcards, or letters).

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## **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 using the contact information listed at the end of this Notice. 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 to the address at the end of this Notice. If you request copies, we will charge you \$1.00 for each page, \$20.00 per hour for staff time to locate and copy your health information, and postage if you want the copies mailed to you. If you request an alternative 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 using the information listed at the end of this Notice for a full explanation of our fee structure.)

**Disclosure Accounting:** You have the right to receive a list of instances in which we or our business associates disclosed your health information for all purposes, other than treatment, payment, healthcare operations and certain other activities, for the last 6 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.

**Restrictions:** You have the right to receive a list of instances in which we, or our business associates 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 an emergency).

**Alternative Communications:** 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 locations, and provide satisfactory explanation how payments will be handled under the alternative means or location you request.

**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.

**Electronic Notice:** If you receive this Notice on our Web site or by electronic mail (e-mail), you are entitled to receive this Notice in written form.

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## **QUESTIONS AND COMPLAINTS**

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

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 complain to us using the contact information listed at the end of this Notice. You also may submit a written complaint to the U.S. Department of Health and Human Services upon request.

We support your right to the privacy of your health information. We will not retaliate in any way if you choose to file a complaint with us or with the U.S. Department of Health and Human Services.

I have read and understand the privacy policy provided to me.

Signature of Patient/Responsible Party \_\_\_\_\_ Date \_\_\_\_\_

## **The Dental Board of California**

### **Dental Materials fact Sheet**

*Adopted by the Board on October 17, 2001*

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 dentist regarding the selection of dental materials 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 material in restorative dentistry are amalgam, composite resin, glass ionomer cement, resin-ionomer cement, porcelain (ceramic), porcelain (fused to metal), gold alloys (noble) and nickel or cobalt-chrome (base metal) alloys. Each material has its own advantages and disadvantages, benefits and risks. These and other relevant factors are compared in the attached matrix titled "Comparisons of Restorative Dental Materials." A glossary of terms is also attached to assist the reader in understanding the terms used.

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 perceptions 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 restoration was made. The durability of any restoration is influenced by the dentist's technique when placing the restoration, the ancillary material 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.

Both the public and the dental profession are concerned about the safety of dental treatment and any potential health risks that might be associated with the materials used to restore the teeth. All materials commonly used (and listed in this fact sheet) have been shown-through laboratory and clinical research, as well as through extensive clinical use- to be safe and effective for the general population. The presence of these materials in the teeth does not cause adverse health problems for the majority of the population. There exists a diversity of various scientific opinions regarding the safety of mercury dental amalgams. The research literature in peer-reviewed scientific journals suggests that otherwise healthy women, children and diabetics are not at increased risk for exposure to mercury from dental amalgams. Although there are various opinions with regard to mercury risk in pregnancy, diabetes, and children, these opinions are not scientifically conclusive and therefore the dentist may want to discuss these opinions with their patients. There is no research evidence that suggests pregnant women, diabetics, and children are at increased health risk from dental amalgam fillings in their mouth. A recent study reported in the JADA factors in a reduced tolerance (1/50<sup>th</sup> of the WHO safe limit) for exposure in calculation the amount of mercury that might be taken in form dental fillings. This level fall below the established safe limits for exposure to a low concentration of mercury or any other released component from a dental restorative material. Thus, while these sub-populations may be perceived to be at increased health risk from exposure to dental restorative materials, the scientific evidence does not support that claim. However, there are individuals who may be susceptible to sensitivity, allergic or adverse reaction to selected materials. As with all dental materials, the risks and benefits should be discussed with the patient, especially with those in susceptible populations.

There are differences between dental material and the individual elements or components that compose these material. For example, dental amalgam filling material is composed mainly of mercury (43-54%) and varying

percentages of silver, tin, and copper (48-57%). It should be noted that elemental mercury is listed on the Proposition 65 list of known toxins and carcinogens. Like all materials in our environment, each of these elements by themselves is toxic at some level of concentration if they are taken into the body. When they are mixed together, they react chemically to form a crystalline metal alloy. Small amounts of free mercury may be released from amalgam fillings over time and can be detected in bodily fluids and expired air. The important question is whether any free mercury is present in sufficient levels to pose a health risk.. Toxicity of any substance is related to dose, and doses of mercury or any other element that may be released from dental amalgam filling falls far below the established safe levels as stated in the 1999 US Health and Human Service Toxicological Profile for Mercury Update.

All dental restorative materials (as well as all material that we come in contact with in our daily life) have the potential to elicit allergic reactions in hypersensitive individuals. These must be assessed on a case-by-case basis, and susceptible individuals should avoid contact with allergenic materials. Documented reports of allergic reactions to dental amalgam exist (usually manifested by transient skin rashes in individuals who have come into contact with the material), but they are atypical. Documented reports of toxicity to dental amalgam exist, but they are rare. There have been anecdotal reports of toxicity to dental amalgam and as with all dental material risks and benefits of dental amalgam should be discussed with the patient, especially with those in susceptible populations.

Composite resins are the preferred alternative to amalgam in many cases. They have a long history of biocompatibility and safety. Composite resins are composed of a variety of complex inorganic and organic compounds, any of which might provoke allergic response in susceptible individuals. Reports of such sensitivity are atypical. However, there are individuals who may be susceptible to sensitivity, allergic or adverse reactions to composite resin restorations. The risks and benefits of all dental materials should be discussed with the patient, especially with those in susceptible populations.

Other dental materials that have elicited significant concern among dentists are nickel-chromium-beryllium alloys used predominantly for crowns and bridges. Approximately 10% of the female population are alleged to be allergic to nickel. The incidence of allergic response to dental restorations made from nickel alloys is surprisingly rare. However, when a patient has a positive history of confirmed nickel allergy, or when such hypersensitivity to dental restorations is suspected, alternative metal alloys may be used. Discussion with the patient of the risks and benefits of these materials is indicated.

| <b>TYPES OF DIRECT</b>                              | <b>RESTORATIVE</b>  | <b>DENTAL</b>  | <b>MATERIALS</b>   |  |
|---|---|--|--|--|
| <b>Comparative Factors</b>                          | <b>Amalgam</b>  | <b>Composite resin (direct &amp; indirect restorations)</b>  | <b>Glass ionomer cement</b>  | <b>Resin-ionomer cement</b>  |
| <b>General description</b>                          | Self-hardening mixture in varying percentages of a liquid mercury and silver-tin alloy powder   | Mixture of powdered glass and plastic resin; self-hardening or hardened by exposure to blue light  | Self-hardening mixture of glass and organic acid   | Mixture of glass and resin polymer and organic acid; self hardening by exposure to blue light  |
| <b>Principle uses</b>                               | Fillings; sometimes for replacing portions of broken teeth  | Fillings, inlays, veneers, partial and complete crowns; sometimes for replacing portions of broken teeth   | Small fillings; cementing metal and porcelain/metal crowns, liners, temporary restorations   | Small fillings; cementing metal and porcelain/metal crowns, and liners   |
| <b>Resistance to further decay</b>                  | High; self-sealing characteristic helps resist recurrent decay, but recurrent decay around amalgam is difficult to detect in its early stages                                 | Moderate; recurrent decay is easily detected in early stages   | Low-moderate; some resistance to decay may be imparted through fluoride release  | Low-moderate; some resistance to decay may be imparted through fluoride release  |
| <b>Estimated durability (permanent teeth)</b>       | Durable   | Strong, durable  | Non-stress bearing crown cement  | Non-stress bearing crown cement  |
| <b>Relative amount of tooth preserved</b>           | Fair; requires removal of healthy tooth to be mechanically retained; no adhesive bond of amalgam to the tooth   | Excellent; bonds adhesively to healthy enamel and dentin   | Excellent; bonds adhesively to healthy enamel and dentin   | Excellent; bonds adhesively to healthy enamel and dentin   |
| <b>Resistance to surface wear</b>                   | Low; similar to dental enamel; brittle metal  | May wear slightly faster than dental enamel  | Poor in stress-bearing applications. Fair in non-stress bearing applications   | Poor in stress-bearing applications; Good in non-stress bearing applications   |
| <b>Resistance to fracture</b>                       | Amalgam may fracture under stress; tooth around filling may fracture before amalgam   | Good resistance to fracture  | Brittle; low resistance to fracture but not recommended for stress-bearing restorations  | Tougher than glass ionomer; recommended for stress-bearing restorations in adults  |
| <b>Resistance to leakage</b>                        | Good; self-sealing by surface corrosion; margins may chip over time   | Good if bonded to enamel; may show leakage over time when bonded to dentin; does not corrode   | Moderate; tends to crack over time   | Good; adhesively bonds to resin, enamel, dentins/post-insertion expansion may help seal the margins  |
| <b>Resistance to occlusal stress</b>                | High, but lack of adhesion may weaken the remaining tooth   | Good to excellent depending upon product used  | Poor, not recommended for stress-bearing restoration   | Moderate; not recommended to restore biting surfaces of adults; suitable for short-term primary teeth restorations   |
| <b>Toxicity</b>                                     | Generally safe; occasional allergic reactions to metal components; however, amalgams contain mercury. Mercury in its elemental form is toxic and as such is listed on prop 65 | Concerns about trace chemical release are not supported by research studies. Safe; no known toxicity documented. Contains some compounds listed on prop 65                                 | No known incompatibilities. Safe; no known toxicity documented   | No known incompatibilities. Safe; no known toxicity documented   |
| <b>Allergic or adverse reaction</b>                 | Rare; recommend that dentist evaluate patient to rule out metal allergies   | No documentation for allergic reactions was found  | No documentation for allergic reactions was found. Progressive roughening of the surface may predispose to plaque accumulation and periodontal disease | No known documented allergic reactions; Surface may roughen slightly over time; predisposing to plaque accumulation and periodontal disease if the material contacts the gingival tissue |
| <b>Susceptibility to post-operative sensitivity</b> | Minimal; high thermal conductivity may promote temporary sensitivity to hot and cold; Contact with other metals may cause occasional and transient galvanic response          | Moderate; material is sensitive to dentist's technique; Material shrinks slightly when hardened, and a poor seal may lead to bacterial leakage, recurrent decay and tooth hypersensitivity | Low; material seals well and does not irritate pulp  | Low; material seals well and does not irritate pulp  |
| <b>Esthetics (appearance)</b>                       | Very poor. Not tooth colored; initially silver-gray, gets darker, becoming black as it corrodes/ May stain teeth dark brown or black over time                                | Excellent; often indistinguishable from natural tooth  | Good; tooth colored, varies in translucency  | Very good; more translucency than glass ionomer  |
| <b>Frequency of repair or replacement</b>           | Low; replacement is usually due to fracture of the filling or the surrounding tooth   | Low-moderate; durable material hardens rapidly; some composite materials show more rapid wear than amalgam. Replacement is usually due to marginal leakage                                 | Moderate; slowly dissolves I mouth; easily dislodged   | Moderate; more resistant to dissolving than glass ionomer, but less than composite resin   |
| <b>Relative costs to patient</b>                    | Low, relatively inexpensive; actual cost of fillings depends upon their size  | Moderate; higher than amalgam fillings; actual cost of fillings depends upon their size; veneers and crowns cost more  | Moderate; similar to composite resin (not used for veneers and crowns)   | Moderate; similar to composite resin (not used for veneers and crowns)   |
| <b>Number of visits</b>                             | Single visit (polishing may   | Single visit for fillings; 2+  | Single visit   | Single visit   |

| <b>TYPES OF INDIRECT</b>                            | <b>RESTORATIVE</b>  | <b>DENTAL</b>  | <b>MATERIALS</b>  |  |
|---|---|--|---|--|
| <b>Comparative Factors</b>                          | <b>Porcelain (ceramic)</b>  | <b>Porcelain (fused to metal)</b>  | <b>Gold Alloys (noble)</b>  | <b>Nickel or Cobalt-Chrome (base metal) Alloys</b>   |
| <b>General description</b>                          | Glass-like material formed onto fillings and crowns using models of the prepared teeth  | Glass-like material that is “enameled” onto metal shells. Used for crowns and fixed-bridges              | Mixtures of gold, copper and other metals used mainly for crowns and fixed bridges              | Mixtures of nickel and chromium  |
| <b>Principle uses</b>                               | Inlays, veneers, crowns and fixed bridges   | Crowns and fixed bridges   | Cast crowns and fixed bridges; some partial denture frameworks                                  | Crowns and fixed bridges; most partial denture frameworks  |
| <b>Resistance to further decay</b>                  | Good, if the restoration fits well  | Good, if the restoration fits well   | Good, if the restoration fits well  | Good, if the restoration fits well   |
| <b>Estimated durability (permanent teeth)</b>       | Moderate; brittle material that may fracture under high biting forces. Not recommended for posterior teeth  | Very good. Less susceptible to fracture due to the metal substructure                                    | Excellent. Does not fracture under stress; does not corrode in the mouth                        | Excellent. Does not fracture under stress; does not corrode in the mouth                               |
| <b>Relative amount of tooth preserved</b>           | Good-moderate. Little removal of natural tooth is necessary for veneers, more for crowns since strength is related to its bulk                                  | Moderate-high. More tooth must be removed to permit the metal to accompany the porcelain                 | Good. A strong material that requires removal of a thin outside layer of the tooth              | Good. A strong material that requires removal of a thin outside layer of the tooth                     |
| <b>Resistance to surface wear</b>                   | Resistant to surface wear, but abrasive on opposing teeth   | Resistant to surface wear; permits either metal or porcelain on the biting surface of crowns and bridges | Similar hardness to natural enamel; does not abrade opposing teeth                              | Harder than natural enamel but minimally abrasive to opposing natural teeth. Does not fracture in bulk |
| <b>Resistance to fracture</b>                       | Poor resistance to fracture   | Porcelain may fracture   | Does not fracture in bulk   | Does not fracture in bulk  |
| <b>Resistance to leakage</b>                        | Very good. Can be fabricated for very accurate fit of the margins of the crowns   | Good-very good depending upon design of the margins of the crowns  | Very good-excellent. Can be formed with great precision and can be tightly adapted to the tooth | Good-very good. Stiffer than gold; less adaptable, but can be formed with great precision              |
| <b>Resistance to occlusal stress</b>                | Moderate; brittle material susceptible to fracture under biting forces  | Very good. Metal substructure gives high resistance to fracture  | Excellent   | Excellent  |
| <b>Toxicity</b>                                     | Excellent. No known adverse effects   | Very good to excellent. Occasional/rare allergy to metal alloys used                                     | Excellent; rare allergy to some alloys  | Good; Nickel allergies are common among women, although rarely manifested in dental restorations       |
| <b>Allergic or adverse reactions</b>                | None  | Rare. Occasional allergy to metal substructures  | Rare; occasional allergic reactions seen in susceptible individuals                             | Occasional; infrequent reactions to nickel   |
| <b>Susceptibility to post-operative sensitivity</b> | Not material dependent; does not conduct heat and cold well   | Not material dependent; does not conduct heat and cold well  | Conducts heat and cold; may irritate sensitive teeth  | Conducts heat and cold; may irritate sensitive teeth   |
| <b>Esthetics (appearance)</b>                       | Excellent   | Good to excellent  | Poor- yellow metal  | Poor- dark silver metal  |
| <b>Frequency of repair or replacement</b>           | Varies; depends upon biting forces; fractures of molar teeth are more likely than anterior teeth; porcelain fracture may often be repaired with composite resin | Infrequent; porcelain fracture can often be repaired with composite resin                                | Infrequent; replacement is usually due to recurrent decay around margins                        | Infrequent; replacement is usually due to recurrent decay around margins                               |
| <b>Relative costs to patient</b>                    | High; requires at least two office visits and laboratory services   | High; requires at least two office visits and laboratory services  | High; requires at least two office visits and laboratory services                               | High; requires at least two office visits and laboratory services                                      |
| <b>Number of visits required</b>                    | Two-minimum; matching esthetics of teeth may require more visits  | Two-minimum; matching esthetics of teeth may require more visits   | Two-minimum   | Two-minimum  |

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Signature of patient