



RYAN SENFT DDS

— ADVANCED COMPREHENSIVE DENTISTRY —

Date ___ / ___ / ___

Name _____

Male

Female

Preferred Name _____

Single

Married

Birthdate ___ - ___ - ___

SSN ___ - ___ - ___

Whom May We Thank for Referring You? _____

Contact Information

Street _____

City _____ State _____ Zip _____

E-mail _____

Cell ___ - ___ - ___

Home ___ - ___ - ___

Work ___ - ___ - ___

Emergency Contact

Name _____ Relationship _____ Phone _____ - _____ - _____

Former Dentist

Name _____ City _____

Insurance

Primary

Insurance Co. Name _____

Insurance Co. Phone _____ - _____ - _____

Policyholder Name _____

Policyholder Birthdate _____ - _____ - _____

Policyholder SSN _____ - _____ - _____

Policyholder Employer _____

Secondary

Insurance Co. Name _____

Insurance Co. Phone _____ - _____ - _____

Policyholder Name _____

Policyholder Birthdate _____ - _____ - _____

Policyholder SSN _____ - _____ - _____

Policyholder Employer _____



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Notice of Privacy Practices

I acknowledge that I have received a copy of the Ryan Senft, DDS, Inc. Notice of Privacy Practices.

Name _____
Signature _____
Date ___ / ___ / ___

Dental Materials Fact Sheet

I acknowledge that I have received a copy of the Dental Board of California’s “The Facts about Fillings” pamphlet.

Name _____
Signature _____
Date ___ / ___ / ___

Cell Phone

I consent to Ryan Senft, DDS, Inc. using my cell phone number to call or text regarding appointments and treatment, insurance, and my account. I understand that I can withdraw my consent at any time.

Cell Phone ___ - ___ - ___
Name _____
Signature _____
Date ___ / ___ / ___

Representative

If this acknowledgement is signed by a personal representative on behalf of the patient, complete the following:

Personal Representative’s Name _____
Relationship to Patient _____



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Name: _____ Birthdate: ___ / ___ / ___ Physician Name & City: _____

- Yes No Is your general health good?
- Yes No Have you been hospitalized, had surgery, or had a serious illness in the last five years?
Explain: _____
- Yes No Are you pregnant? *How many weeks?* _____
- Yes No Do you use tobacco or nicotine (cigars, cigarettes, e-cigs, smokeless tobacco, etc.)?
- Yes No High blood pressure
- Yes No Fainting spells
- Yes No Gastroesophageal reflux disease (GERD)
- Yes No Convulsions or epilepsy
- Yes No Stroke *Month/Year:* _____
- Yes No Heart attack *Month/Year:* _____
- Yes No Heart disease/angina *Describe:* _____
- Yes No Respiratory disease *Describe:* _____
- Yes No Liver disease *Describe:* _____
- Yes No Kidney disease *Describe:* _____
- Yes No Cancer *Describe:* _____
- Yes No Radiation therapy *Describe:* _____
- Yes No Emotional problems *Describe:* _____
- Yes No Diabetes *Type:* I II
- Yes No Hepatitis *Type:* A B C
- Yes No Oral herpes
- Yes No HIV/AIDS
- Yes No Tuberculosis
- Yes No Sensitivity to epinephrine
- Yes No Prolonged bleeding following injury or surgery
- Yes No Total joint replacement *Month/Year:* _____
- Yes No Artificial heart valve, history of infective endocarditis, heart transplant that has developed a valve problem, cyanotic congenital heart disease, or surgery for a congenital heart defect
- Yes No Allergy to penicillin
- Yes No Other allergies *Describe:* _____
- Yes No Prescription drugs *Describe:* _____
- Yes No Nonprescription drugs *Describe:* _____
- Yes No Is there anything about your health history that has not been asked?
Explain: _____

I have answered this form completely and accurately. I will inform my doctor of any changes.

Patient's Signature: _____ Date: _____



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FREQUENTLY ASKED QUESTIONS (FAQ)

GENERAL

Why should I choose Dr. Ryan Senft for my dental care?

Dr. Senft has received extensive training beyond that of average general dentists in order to provide services that many general dentists refer out to specialists. In addition to typical general dentistry procedures, Dr. Senft performs extractions, bone grafting, implants, root canals, orthodontics, and full mouth rehabilitations, all from the comfort of one dental office. Dr. Senft believes that the time and expense that he can save his patients is well worth the investment that he has made and continues to make in his training and education.

Do you take my insurance?

We accept most dental PPO plans. Plans obtained through Covered California and HMO plans are not accepted at our office.

What should I expect at my first appointment?

Your first visit will typically be a new patient comprehensive exam. You will be greeted by our friendly team and will be given a tour of our state-of-the-art office. Then, appropriate photographs and x-rays will be taken, and Dr. Senft will perform an examination of your gums, teeth, muscles, and joints. At your request, Dr. Senft can also provide his thoughts on the appearance of your teeth. He will explain all of his findings, your options, and his recommendations. We value being thorough, so if more time is indicated, Dr. Senft will ask you to return for a complimentary second visit. Depending on the condition of your oral health, we may be able to offer professional hygiene care (a “cleaning”) at this first visit. More commonly, we will schedule your professional hygiene care for a subsequent visit. If you are coming to see us for a dental emergency, we will always address that first.

Do you offer payment plans?

We offer several payment options for our patients. We gladly accept cash, personal checks, and credit cards. Most dental PPO plans are accepted, and we will take care of the paperwork as a courtesy. We also offer patient financing through CareCredit if you qualify. Come in for an appointment, and one of our experienced team members will happily go over your individual insurance benefits and payment options with you.

Why doesn't my insurance cover that (or cover that in full)?

Dental insurance is not really insurance in the true sense of the word. True insurance covers your health, your house, your car, etc. in the event of a catastrophic event. There is no dental



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insurance plan that works that way. Dental insurance is really just a pre-paid benefits plan. You (or your employer) pays some money each month to the insurance company, and the insurance company provides a fixed amount of coverage in return. The average annual dental insurance coverage is \$1,500, the same amount that it was in the 1960s when dental insurance was created. As you would expect, \$1,500 covered a lot more dentistry in the 1960s than it does today. If a dental procedure is not covered by your particular dental insurance plan, it does not mean that the procedure is not necessary or that there will not be consequences to your health if the dental problem is ignored. Rest assured that we will always recommend what is in the best interest of your health and will do our best to educate you on the coverage offered by your particular insurance plan.

What if I need to reschedule/cancel an appointment?

Part of our mission is to be on time for our patients and to be efficient in all ways. It is our hope that our patients will be equally respectful. Kindly provide at least two business days' notice for any appointment that needs to be rescheduled. Our business hours are Monday through Thursday, 8AM to 5PM. If, for example, you have an appointment on Monday morning and need to reschedule, we expect you to notify us by the Wednesday morning prior, and we will be happy to assist you in rescheduling. Appointments cancelled with less notice may be subject to a cancellation charge.

How often do I need to get x-rays?

X-rays are an essential part of both your initial examination and your regular checkups at our office. There are many oral diseases that we simply cannot identify without the use of x-rays. We will typically take a few x-rays each year. The determination will be based on a variety of individual factors. There are state regulations that require us to take x-rays, and we are therefore unable to see patients who repeatedly refuse them.

TECHNOLOGY

What technology does Dr. Senft have in his office?

Dr. Senft's practice is distinguished by its use of advanced technology, which makes dental procedures faster, more comfortable, and more precise for his patients. Some of the many technologies that he employs include 3D digital imaging, CEREC same-day crowns, digital impressions, 3D printing, virtual implant planning, mini intraoral cameras, and lasers.

What type of x-rays will I get at your office?

Dr. Senft uses modern digital x-rays, which use up to 90% less radiation than traditional film x-rays. In addition, Dr. Senft's patients benefit from state-of-the-art 3D digital imaging. With this



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technology, the doctor can see all your teeth and oral structures in three dimensions. There is no faster or more comfortable way to gather so much critical information about your mouth and teeth. Very few dentists have this technology in their offices.

SEDATION

Do you offer laughing gas or other types of sedation?

Dr. Senft is formally trained in the use of nitrous oxide (laughing gas) and both oral and IV sedation. Dr. Senft's patients, including those who have needed sedation with other dentists, have found that they are extremely comfortable receiving treatment from Dr. Senft without any sedation. They attribute this to his gentle hands and demeanor. Because his patients have not needed these services, we no longer offer them. If desired, we may prescribe a mild sedative that can be taken in pill form before an appointment.

DENTAL IMPLANTS AND ORAL SURGERY

What is bone grafting and is it safe?

When a tooth is removed or when additional bone is needed to support a dental implant, bone grafting is used. Dr. Senft most commonly uses bone from human donors. This avoids the discomfort associated with using an individual's own bone. The bone comes from an accredited tissue bank, where it is thoroughly sterilized and tested. According to the CDC, there has not been a single reported case of disease transmission in the 30-year history of this type of bone graft.

Why should I choose Dr. Ryan Senft for my dental implant?

When choosing an implant dentist, it is most important to consider the doctor's training and experience. Dr. Senft has been awarded both a Fellowship and a Mastership in implant dentistry by the International Congress of Oral Implantologists, the leading international organization for the credentialing of implant dentists. These awards signify Dr. Senft's extensive training as well as his commitment to ongoing education as the field of implant dentistry evolves. Dr. Senft is the only dentist in Cupertino who has been awarded both of these designations.

Are all dental implants the same?

Absolutely not. There are hundreds of companies making dental implants, and they sell them to dentists at a wide range of prices. Some dentists, especially those offering deep discounts on dental implant procedures, use inferior "knock-off" implants. Research and experience show



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that such implants are more likely to cause complications. We use what many consider to be the finest dental implants in the world, from a Swiss company named Straumann.

How much will my dental implant cost?

We will always inform you of all fees in advance of performing any treatment. Our treatment is highly customized to each patient, so it is not possible to provide a fee for treatment until we perform an examination. Each person and situation is unique.

What technology does Dr. Senft use in the dental implant process?

Dr. Senft employs the most current and advanced technology throughout the dental implant process. This includes 3D digital imaging, digital impressions, virtual implant planning, and the use of a surgical guide. All of these technologies work in tandem to provide an extremely precise and efficient implant experience for Dr. Senft's patients.

Is it painful to get a dental implant?

The feedback that Dr. Senft has received from his patients is that they typically need no pain medication after a dental implant procedure and that they typically return to work the same or next day.

CEREC

What is a same-day CEREC crown?

CEREC is a technology that allows Dr. Senft to make one or more porcelain/ceramic crowns for his patients in a single visit. The system uses a high resolution camera, sophisticated computer software, and a 3D printer to make your crown in about fifteen minutes versus the three weeks that it takes a typical dental lab to make a crown. Dr. Senft is highly experienced with this technology, having performed the procedure thousands of times.

How do one-visit CEREC crowns compare to old-fashioned two-visit, lab-made crowns?

CEREC crowns are made through a digital process, so they fit more precisely than crowns made using old-fashioned impression techniques. In addition, having a crown made in a single visit and not having to wear a temporary crown for three weeks prevents damage to the underlying tooth that can occur with the old-fashioned two-visit technique. Lastly, we can use the same high-quality porcelains/ceramics that labs use, so the beauty and longevity are the same.



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ORTHODONTICS

My orthodontist attached a metal wire behind my teeth after I finished braces. May I get that removed?

In order to keep your teeth straight after braces, it is necessary to either have metal wires attached behind your teeth or to have a set of retainers made for wearing to sleep. It has been our experience that the metal wires contribute to unhealthy, bleeding gums. In addition, the wires often break off at inconvenient times. We can easily remove your wires and make a set of clear, metal-free retainers that you can wear to bed and remove in the morning.

What are Invisalign and ClearCorrect?

Invisalign and ClearCorrect use a series of custom-made clear trays, called aligners, that are worn to straighten teeth without metal braces. As an individual progresses through the series of aligners, his or her teeth gradually move into a straighter position. The aligners are nearly invisible when worn.

Am I a candidate for Invisalign or ClearCorrect?

Most people are good candidates for Invisalign or ClearCorrect treatment. We recommend scheduling an examination so that we may discuss your goals and provide you with an estimate for the length of treatment.

COSMETIC DENTISTRY

Why would I choose porcelain veneers over composite resin bonding? Isn't bonding cheaper with the same result?

The bonding technique uses a generic composite material that is semi-permanently attached to your teeth and shaped by the dentist in your mouth. Bonding may initially be a less expensive option and may look good immediately after it is done. However, the material tends to stain and chip over a short amount of time, and the cost of repairs and replacement generally makes this option more expensive than veneers in the long run.

What is the best way to whiten my teeth?

It has been our experience that the most effective and comfortable way to whiten teeth is at home using custom trays made by a dentist. We take impressions of your teeth and fabricate custom trays for your upper and lower teeth that are clear, soft, and comfortable. You fill the trays with whitening gel provided by us and wear the trays either during the day or at night until the desired result is obtained, which is typically about three days. It has been our



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experience that this method of whitening is superior to both store-bought whitening products and in-office treatments such as ZOOM.

Will whitening make my teeth sensitive?

Modern whitening gels contain desensitizing agents that prevent sensitivity for most people. Some people do experience temporary tooth sensitivity after whitening. For those individuals, the sensitivity does not typically last for more than a day or two.

Our Privacy Practices

Ryan Senft, 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。

Our Uses and Disclosures of Health Information

How we may use and share your health information

(see pages 2–4 for more details)

- To treat you
- To obtain payment for your treatment
- To run our practice and improve our services
- Upon your request with your written authorization
- With your family and friends
- Via unsecured email, only upon your request
- With persons involved in your care
- For the marketing of health-related services [remove if you do not utilize this practice]
- For research [remove if you do not utilize this practice]
- For fundraising [remove if you do not utilize this practice]
- In the event of a change of ownership
- When required by law
- For purposes of public health
- To report abuse or neglect
- For purposes of national security
- Appointment reminders
- Sign-in sheets and announcements

Your Rights

You have the right to

(see pages 5–6 for more details)

- Access your medical record
- Receive an accounting of disclosures of your information
- Restrict our sharing of your information
- Alternative communications
- Be notified of an impermissible use of your information
- Amend your information
- File a complaint against our office and with the U.S. Department of Health and Human Services

Notice of Privacy Practices

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 09.30.16 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.

Notice of Privacy Practices (continued)

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 Emails

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.

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.

Notice of Privacy Practices (continued)

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.

Research

Your health information may be disclosed to researchers for research purposes. In this situation, written authorization is not required as approved by an Institutional Review Board or privacy board.

Fundraising

We may use or disclose demographic information and dates of treatment in order to contact you for fundraising activities. If you no longer wish to receive these communications, notify us at the contact information provided below and we will stop sending further fundraising information.

Patient Rights (continued)

Questions and Complaints

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

Contact: Ryan Senft, DDS

Telephone: 408.996.8595

Fax: 408.996.3925

Email: drsenft@ryansenftdds.com

Address: 20445 Pacifica Drive, Suite B, Cupertino, CA 95014

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.

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

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www.dbc.ca.gov

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5/04

The Facts About Fillings

The Facts About Fillings



DENTAL BOARD OF CALIFORNIA

1432 Howe Avenue • Sacramento, California 95825

www.dbc.ca.gov



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

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

