

## **Informed Consent for Dental Treatment**

Midnight Sun Smiles, LLC  
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I understand the purpose of this general consent is to raise my awareness of risks that are common-place in many dental procedures and that every dental patient has the right to informed consent. That means that as a patient or as a legal guardian for a patient, I should understand what treatment is being proposed, what the possible complications and risks are, and what the alternatives are to the treatment. Of course, one alternative for me is to do nothing, although that carries with it its own risks. My acknowledgement, by way of my signature on the Health History form, confirms that I have read the following informed consent information and understand that no dental treatment is completely risk free and that the dentist will take reasonable steps to limit any complications of my treatment and to provide competent dentistry with comfort and care. The information included herein about the potential risks and benefits of treatment is segregated into each of the specific areas of treatment.

**LOCAL ANESTHESIA:** The use of local anesthetics is the one phase of dentistry that causes the greatest amount of worry, anticipation, fear and anxiety in dental patients, yet ultimately provides both the patient and the dentist with the means by which potentially painful procedures can be completed almost totally without discomfort. Modern dentistry, while using the age old techniques of intraoral injections, combines the use of small gauge instruments and a variety of highly effective anesthetic agents to complete the task of inducing local anesthesia in dental patients. Were it not for local anesthetics, the profession of dentistry would indeed be looked upon as a sadistic profession. Many local anesthetic solutions are prepared in combination with vasoconstrictive agents (agents which cause the small capillaries to constrict) so as to enhance the prolonged effects of anesthesia. Such additional agents also provide the benefit of reduced hemorrhage in the case of surgical procedures.

Potential complications most commonly associated with the use of local anesthetics include minor discomfort during the injection procedure, the feeling of an electric shock radiating through the tongue or jaw if the nerve is bumped during the injection procedure and hematoma (minor internal bleeding) if a blood vessel is punctured. Other potential complications, which rarely occur, include short term increased heart rate and a feeling of dizziness if a minor amount of the anesthetic solution enters the blood stream, soreness and/or muscle stiffness if anesthetic solution comes in contact with any muscle fibers, dull aching sensation radiating from the jaw bone if the needle bumps the bone during the injection, and temporary or permanent numbness of the tongue, teeth, or soft tissues, exclusive of the effects of the anesthetic agents. Articaine (Septocaine) is used only in the maxilla in this office. Lidocaine and Carbocaine are typically used for both maxillary and mandibular anesthesia.

Medications, drugs, anesthetics and prescription drugs all have the potential of causing drowsiness, lack of awareness and problems with coordination, all of which can be increased by the use of alcohol and other drugs.

**PERIODONTAL DISEASE (Gum and Bone Disease):** If you have been diagnosed as having periodontal disease, then you have been affected by a disease that, according to the American Dental Association, affects 3 out of every 4 Americans and is second in prevalence only to the common cold.

It means that you have swollen and bleeding gums and you may have bone loss around your teeth caused by the presence of bacteria in areas we call "pockets". If nothing is done, the pockets may become deeper and eventually cause you to lose your teeth. Secondary complications of periodontal pockets include the development of localized infections called abscesses, as well as the potential for root sensitivity and root decay. Periodontal treatment is aimed at stabilizing, reducing or eliminating the pockets, whichever is most feasible, so that you are able to keep your teeth for as long as you possibly can.

*Conservative periodontal treatment is generally completed by a general dentist or by a dental hygienist in conjunction with the oversight of a general dentist. Such treatment consists of the scaling and root planing of those teeth that demonstrate adjacent pockets. Scaling is the removal of calcareous deposits (tartar) from the root surfaces, while root planing is aimed at removing the outermost layer of cementum on the root surfaces so as to provide a disease free smooth surface to which the soft tissue can attempt to reattach. If the tissue fails to reattach after a period of time, then the pockets must be reduced in depth by surgical techniques. The whole purpose of periodontal treatment is to remove bacteria from the pockets and make those areas more easily cleansable by you, the patient.*

Potential complications associated with periodontal treatment and pocket reduction include sensitive teeth, exposing root structure which is more susceptible to decay, recurrence of periodontal disease if inadequate home care and a failure to complete routine follow-up dental care occurs, temporary or permanent numbness in areas where surgical treatment is required, sore gums both during and after treatment until healing occurs, and other complications as described in the oral surgery handout.

Unfortunately, most people do not know they have periodontal disease because it is seldom painful except in the most advanced cases. Many people are unaware that they have periodontal disease until it is too late to save their teeth. If you have pockets that cannot be cleaned by simple brushing and flossing, you may need to have your teeth cleaned as often as every 3 to 4 months. If even this fails to prevent an increase in pockets depths, or if your periodontal condition is already severe, you may need to see a periodontist, a dental specialist who treats your gums and the bone supporting your teeth. This may seem like a time consuming and expensive treatment, but it can help you keep your teeth for your entire lifetime.

A routine cleaning will not treat your periodontal condition. If only a routine cleaning is completed in the presence of periodontal disease, then the periodontal condition is left totally untreated. Performing only a routine cleaning in the presence of moderately deep to deep periodontal pockets may actually be detrimental to your teeth and gums. Therefore, this office will not strictly do routine cleanings if periodontal disease is present, even if that is what you request because of your insurance coverage.

Periodontal treatment is more involved than routine cleanings and therefore, the fees for treating your condition are significantly higher. The dentist or dental hygienist will inform you of the anticipated costs of treatment based on the results of a periodontal evaluation. In many cases, additional time is required to complete the treatment due to the necessity of administering local anesthesia. If you have insurance coverage, periodontal treatment may not be a covered benefit and if it is, reimbursement is usually at a lower level than routine cleanings. Typically, insurance plans pay for 80% of the cost of periodontal scaling and root planing as well as 80% of the cost of follow-up periodontal cleanings. Insurance plans vary considerably, so please read your plan description so that you are aware of what your particular plan might pay. If you have questions about insurance and periodontal treatment, don't hesitate to ask either the dentist, hygienist or front desk staff members.

**RESTORATIVE TREATMENT:** Restorative dentistry consists of the removal of decayed or broken down tooth structure and the rebuilding or replacing of it with one or more types of restorative materials. The extent of the restorative work to be completed will depend upon the extent of decay or structural loss due to fracture, abrasion (wearing away by mechanical means) or attrition (natural wear). The range of restorative work varies from the completion of a simple one surface filling to the need for rebuilding the complete tooth structure (a buildup) and covering it with a prosthetic crown (cap). In some cases where a significant amount of tooth structure is lost, the buildup must be firmly anchored to the remaining root by means of pins or posts.

### **Pins and Posts**

Pins are nothing more than very small screws that are placed in the remaining tooth to help retain the filling material. The benefit of the pins is that large areas of lost tooth structure can be rebuilt with filling materials and be firmly anchored to the remaining tooth by virtue of the pins; otherwise some teeth may have to be extracted (pulled). Potential complications with pins include fracturing the teeth during placement, placing the pin such that it penetrates the nerve chamber or perforates the

external surface of the tooth because of unforeseen radical internal and external tooth anatomy. Occasionally, a pin may break off in the tooth where it is generally left without harm because of the impracticality of its removal.

Posts are very large pins that are placed inside the root canal after root canal therapy has been completed. Posts are used as structural anchors in the event the entire crown or majority of the crown is missing. Posts are generally cemented in place. Potential complications associated with the placement of posts include fracturing or splitting the teeth during placement and perforating the root structure during canal preparation.

### **Restorative Materials**

Many types of restorative materials are used in this dental office and include amalgam, composite, cements, liners and crown materials which include gold, porcelain and high noble metals such as platinum and palladium.

#### **Amalgam:**

For many decades, amalgam has been the most commonly used restorative material and consists of various proportions of silver, mercury, zinc, copper, tin and other constituents. The advantages of using amalgam include its low cost, strength, durability, ease of placement, wear resistance, its ability to conform to any shape, and its corrosive property which allows it to provide an excellent seal between it and the remaining tooth structure. Potential complications associated with its use are the expression of mercury hypersensitivity in the patient (refer to the American Dental Association brochure entitled "Dental Amalgam" for a discussion of the subject), galvanism (a sensation similar to that created when chewing on tin foil due to two dissimilar metals coming in contact with one another, i.e. gold and amalgam, etc.), amalgam tattooing (a small, benign, blue spot created in the gum tissue when a small particle of amalgam becomes embedded in the tissue during the restorative procedure) and recurrent decay at the margins (borders) of the fillings. Millions of fillings have been placed using dental amalgam and it is still considered one of the best conservative restorative materials in use today.

#### **Composite:**

Composite is the restorative material used for esthetic restorations and is probably the most widely used restorative material in dentistry. It has been in use for both anterior and posterior restorations for many years. The benefits of composite are primarily its esthetic qualities and its apparent non-toxic constituents for use in those people that have a demonstrated hypersensitivity to mercury in dental amalgam. The use of composite as a permanent restorative material is highly dependent upon the technique used by the dentist during placement.

Potential complications arising from its use are recurrent decay at the margins (borders) of the fillings, recurrent or newly occurring sensitivity after placement because of a hypersensitivity to the material itself, and reduced wear due to its relative lack of strength and wear resistance as compared to other restorative materials. In some situations, composite used in large fillings is subject to shear failure (the breaking away or fragmentation of a segment of a filling in an area subjected to high stress). Composite restorative materials are strong, durable materials for use in the mouth and hopefully will perform as well as amalgam for the long term. For appropriately selected restorations, the composite restoration is an excellent restorative material for posterior teeth. It has been demonstrated to be an excellent restorative material for non-stress bearing anterior teeth.

#### **Cements and Liners:**

Cements and liners are used primarily within the internal aspects of dental restorations. Calcium hydroxide and glass ionomer liners are the primary materials used as cavity liners. Calcium hydroxide has unique properties which help stimulate dentinal growth within the nerve chamber. Calcium hydroxide is a bland preparation with no known potential complications. Glass ionomer liners provide protection for the pulp and improved dentinal bonding capability for composite restorations. Copal varnish, another cavity liner, is used with dental amalgam as a cavity liner after placement of calcium hydroxide, and acts to provide a permanent internal seal between the amalgam and the tooth structure and a temporary seal until the amalgam corrodes at the external margins. No known potential complications exist with the use of copal varnish.

Cements are those dental material used to replace internal tooth structure in order to provide an insulative barrier between the nerve and the dental filling material. They are also used to lute (glue) custom made crowns and inlays onto or into the tooth preparation. Most cements consist of a powder and a liquid which are mixed together to form the actual cement. The liquid phase is typically a form of a chemical acid which reacts with the powder constituent to form the hardened cement. The benefits of using cements are their insulative qualities, ease of placement, strength, bonding properties, fluoride release (in some types of cements), and the rapidity of changing from the liquid to solid phase. Potential complications arising from their use include temporary inflammation of the nerve due to the free acid while in the mixed liquid phase. Various cavity liners are used to protect the tooth from the temporary effects of the free acid.

#### **Crown Materials:**

Most crown materials such as gold, porcelain and the high noble metals are chemically stable for use in the mouth as dental restorative materials. The benefit of their use is their strength, esthetic qualities, durability, non-tarnishability, ease of fabrication and adaptability to any configuration. Potential complications resulting from their use include their high cost, and in the case of porcelain, its potential for fracture and abrasiveness relative to natural tooth structure.

#### **Implant Supported Restorations:**

Similar to tooth borne restorations, implant supported restorations can be fabricated from a variety of materials including gold, high noble metals, porcelain and other ceramics. Each of these materials has its own unique advantages for particular indications in the mouth that can be discussed with you prior to treatment. Implants do not have the same proprioception as our natural teeth as they do not contain any nervous tissue ("nerves"). As a result it is possible to direct extremely strong forces on implant supported restorations. For this reason fracture of porcelain or ceramic materials can occur and use of an occlusal guard ("night guard") is strongly recommended.

**ENDODONTIC TREATMENT (Root Canal Treatment):** Endodontic treatment consists of the treatment of dental pain or pathology (disease) arising from or caused by the inflammation or death of the nerve tissue (pulp) residing inside the tooth. Root canal therapy involves removing the pulp of the tooth under sterile conditions and the enlargement, shaping and obturation (filling) of the root canal itself. In many cases, dental decay extends to a point where the bacteria causing the decay enter into the pulp chamber and cause inflammation and abscessing of the pulp. At such time, the tooth must either be extracted or root canal

therapy completed to rid the body of the harmful by-products of the infected tooth and the concurrent pain. Root canal therapy allows you to "save" the tooth by getting rid of only the infected pulpal tissue. In some cases, the abscess is so large that it is both impossible and impractical to remove the infected tissue using standard conservative endodontic procedures. In such cases, surgical endodontics is required which involves the removal of the abscess area and subsequent sealing of the root canal from the apex (root end). Surgical endodontics is usually completed by an endodontist, a specialist in root canal therapy who has taken additional training specifically in the area of pulpal disease.

The primary benefit of endodontic therapy is the ability to save a tooth that would otherwise be lost due to dental decay, fracture, abrasion or attrition. Endodontic therapy further enables the restorative dentist the opportunity to rebuild a seemingly hopeless fragment of tooth structure into a fully esthetic and functional part of the masticatory (chewing) apparatus. Relief of dental pain, swelling, infection and osseous (bony) defects all are the result of successful endodontic therapy.

There are potential complications associated with receiving endodontic treatment and with the drugs or medications used both during and after the course of the treatment. Such potential complications include the fracture of remaining root structure during the obturation (filling) of the canals, perforation of the root or crown of the tooth because of unforeseen radical tooth anatomy encountered while accessing the root canals, breaking of instruments inside the root canal, recurrent pain due to nerve tissue remaining in inaccessible lateral canals (secondary canals that enter and run at oblique angles to the main canal) or in sclerotic canals (those that have constricted by natural bodily processes such that they cannot be located or adequately accessed to be cleaned and filled). In the event of sclerotic canals or complicated lateral canals, surgical endodontics may be required upon the completion of standard root canal therapy so as to completely seal off the canal(s) from the end of the root.

Other potential complications consist of inflamed nerve endings in the bone surrounding the tooth caused by the process of mechanical debridement of the canal or by the leaching effect of medicaments placed inside the canal to aid in cleaning and sterilizing the canal.

As with all extractions and minor surgical procedures, there are possible complications of the surgery itself and with the drugs used both during and after the surgery for anesthesia, pain and infection control. The more common complications are pain, infection, swelling, bleeding, bruising and discoloration of the tissues in the area of the surgery. Other potential complications which rarely occur include temporary or permanent numbness and tingling of the lips, tongue, gums, chin, cheeks or teeth; injury to or stiffness of the facial muscles and possible changes in the bite or in the jaw joints; injury to other tissues, adjacent teeth or restorations in other teeth; referred pain to the ear, neck or head; nausea, vomiting, allergic reactions, bone fractures and delayed healing; and sinus complications which might include creating an opening into the sinus from the mouth due to the removal of upper teeth.

**FIXED PROSTHODONTICS (Bridges):** Fixed prosthodontics, hereinafter referred to as bridgework, consists of the replacement of missing teeth with false teeth that are permanently connected to adjacent teeth. The total restoration is called a "bridge", while the replacement tooth is called a "pontic" and the attachment teeth are referred to as "abutments" or "retainers". Several types of bridges are available to replace missing teeth. Bridges can be fabricated of gold, porcelain, high noble metals or combinations thereof. The specific type used depends upon the condition of the abutment teeth, the esthetic requirements, the number of abutment teeth relative to the "span" (distance between abutment teeth), and location of the bridge in the mouth. If too many teeth are lost and the span becomes too great, bridgework may not be a viable alternative for replacing the missing teeth. In such a case, the missing teeth may have to be replaced with either a removable partial denture or a removable full denture which may or may not utilize implants for additional stabilization. Missing teeth can also be restored strictly through the use of implant supported crowns and bridges. Implants are titanium screws that are placed in the bone so as to perform like the root of a tooth.

In many cases, permanent teeth are lost prematurely due to decay, trauma, periodontal disease and other conditions. The human body attempts to compensate for a lost tooth by trying to fill the space with adjacent teeth. Usually adjacent teeth in the same arch (jaw) will tip or lean into the space left by the missing tooth. Teeth in the opposing arch will super erupt (appear to become longer) to try to fill the void left by missing tooth. The result of all of this tooth movement is a bite that becomes misaligned and the potential for the development of temporomandibular joint dysfunction (problems with the jaw joint). These are generally considered to be the complications or risks of electing the "no treatment" option. Therefore, it is advisable to replace the missing tooth as soon as possible after their loss by using either fixed or removable dentures or fixed bridgework. The use of a fixed bridge or an implant is generally recommended instead of a denture because of its permanency and stability. However, the use of fixed bridgework or implants does not apply to every situation where a tooth has been lost.

The benefits of having bridgework or implants completed to replace a missing tooth are: the maintenance of a properly aligned bite; the regaining of lost chewing surface, especially in posterior (back) teeth; replacement and maintenance of esthetics, particularly in anterior (front) teeth; maintaining stability of existing teeth or gaining additional stability due to the splinting action of the bridge; and the correction of alignment of previously missing teeth. The primary reason implants or bridges are placed is for the restoration of both function and esthetics in your smile.

Potential complications associated with the placement and long term wearing of bridgework and with the drugs and medications used both during and after the procedure include temporary or permanent sensitivity to cold and sometimes hot substances, temporary pain and/or bleeding in the adjacent gum tissue due to its manipulation during the procedure, temporary discomfort with the temporary restoration, minor laceration or abrasion of adjacent tissues during the tooth preparation procedure, hypersensitivity to medicaments used for tissue retraction during the impression taking procedure, swallowing or aspiration of the bridge during try-in and placement procedures, and recurrent decay at crown margins.

If implants are to be placed in lieu of bridges, you will be referred to an oral surgeon for a consultation. At that time, the oral surgeon will make a determination as to whether or not implants are a viable alternative for you. Informed consent information relative to their placement will be given to you at that time.

**REMOVABLE PROSTHODONTICS (Dentures):** Removable prosthodontics, hereinafter referred to as dentures, consists of the replacement of missing permanent teeth with false teeth that are not permanently connected to adjacent teeth. The false teeth are incorporated into a removable appliance called a denture. If all of the permanent teeth are missing in an arch, the denture is referred to as a full denture, whereas if only a portion of the teeth are missing in an arch, the denture is referred to as a partial denture. The full denture relies totally upon support from the soft tissues in the oral cavity while the partial denture gains its support from both the soft tissues and the remaining teeth. Dentures can also be placed in conjunction with the placement of implants (titanium screws in the jaw bones) which are used to provide much improved retention and stabilization of the dentures. Implants are particularly valuable when full lower dentures are to be placed.

Variations of these two basic types of dentures include "temporary" dentures and "immediate" dentures. A temporary denture is generally a partial denture that that is meant to replace one or more teeth that are to be extracted in an aesthetic area of the mouth. The denture is placed immediately after the extractions are completed and is used until healing of the underlying tissues is complete. An immediate denture is basically a temporary denture except that all of the teeth in an arch are scheduled to be extracted. The immediate denture is placed immediately upon completion of all of the extractions, hence the name "immediate" denture. A denture of this type can be fabricated of less costly materials and used as a true temporary denture. After healing of the underlying tissues is complete, new full dentures are fabricated. If the immediate denture is first fabricated of the best quality materials, the denture can be relined at a later date so as to accommodate the changes in the tissues which occur as a result of the healing process.

The fabrication of well fitted dentures usually takes several appointments to complete because of the number of steps in the fabrication process. One-step denture fabrication usually results in ill-fitting dentures and is not advised. Well fitted dentures require diligence on the part of the dentist and much patience on the part of you, the patient.

Benefits gained from placement of dentures includes the replacement of missing teeth for the purpose of restoring function and esthetics to the patient with multiple missing teeth; the elimination of disease potential caused by severely decayed or broken down teeth or teeth affected by severe periodontal disease (bone loss caused by bacteria); the stabilization of mobile teeth in some situations; and the restoration of the normal phonetic apparatus in the case of severely broken down anterior (front) teeth.

Potential complications associated with the placement and wearing of dentures includes the development of sore spots (denture sores), compromised esthetics from partial denture clasps, minor abrasion of teeth by partial denture clasps, and the gradual loosening of the dentures with time due to changes in the underlying soft tissues and/or teeth or natural wear of partial denture clasps. In the case of immediate or temporary dentures where single or multiple extractions are completed in conjunction

with the placement of the dentures, information about the surgery will be given to you to discuss the potential complications associated with the extractions or surgery. It has been demonstrated that over time, the underlying jaw bone can undergo resorption (gradual loss) due to the pressures imposed on the tissues from even well fitted dentures that rely totally or near totally upon soft tissue for support. In rare cases, pressures exerted by dentures on the supporting tissues have been known to cause a temporary or permanent sensation of numbness in the affected jaw.

**I understand that the practice of dentistry is not an exact science and there are no guarantees or assurances as to the outcome or results of treatment or surgery, nor is there any warranty period for any treatment, restorations or appliances that are completed.**

**I have the right to ask for more information if I have any concerns about my procedures and the possible side effects or complications, and I promise to use that right to its fullest extent if for any reason I feel I am not fully informed about my procedure, the risks of the procedures, and my alternatives to the procedure. I read, write and understand all communications in the English language.**

Your signature on the Medical History form acknowledges that you have read and understand the information presented in this **Informed Consent** document. If you have any questions about anything relative to your proposed treatment that is not specifically covered in this document, please ask the dentist for more detailed information.

Evan G. Young, DDS