**Smile Artistry™ Dental Practice**
General Dental | Cosmetic Dental | Implant Dental | Hygiene

# INFORMED CONSENT

**(INCLUDING TREATMENT WARNINGS, COMPLICATIONS AND OTHER CONCERNS TO DENTAL CARE)**

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**Exerts copied from Dr John Kois, Seattle and from Dr Carl Misch, Michigan.**

The intent of this document is to inform you of the myriad of possibilities that exist as potential problems when undergoing dental restorative and prosthodontic treatment. Many of the problems or conditions mentioned occur only occasionally or rarely. There may be other inherent risks not discussed in this document. You should be aware that problems can occur, and that every effort will be made to treat the conditions that develop or we will refer you to the appropriate health care professional.

The practice of dentistry is not an exact science and therefore, reputable practitioners cannot guarantee results. Please understand that no one can promise that any treatment or dental procedure will be successful or that any risk, complication or injury will not occur.

You should understand that unforeseen conditions or circumstances might arise during the course of the treatment. The following information is routine for anyone considering restorative and prosthodontic treatment in our office. While recognizing the benefits of a pleasing smile and well-functioning teeth, you should also be aware that dental treatment, like any treatment of the body, has some inherent risks and limitations. These are seldom enough to contraindicate treatment, but should be considered in making a decision. As in all other healing arts, results cannot be guaranteed.

**OUR PHILSOPHY OF CARE**: Smile Artistry will aim to treat all of its patients according to its Philosophy of Care. At Smile Artistry our purpose is to provide total care dental services that give our patients 'comfort, function, beauty.' Smile Artistry provides the best possible care to its patients, and as such long-term results are what we want you to experience.Our core dental services include General and Preventive Dental, Dental Implant and Cosmetic Dental Care. Having the confidence in the appearance of your smile can result in a healthier approach to the general care of your teeth. By taking pride in our smiles we can keep our teeth for life. We take a systematic approach in our detection and prevention of decay and gum disease and equally systematic approach to the creation and delivery of our dental plans.

**INITIAL DIAGNOSTIC PROCEDURES:** In order to help formulate treatment recommendations, the following diagnostic procedures may be performed: (1) a medical and dental history, (2) discussion of your dental problems, concerns and desires, (3) x-rays, (4) plaster casts of the mouth and teeth, (5) examination of the mouth and associated structures, (6) photographs, and (7) conference with previous or concurrent treating health professionals. If additional diagnostic procedures or consultations are indicated, they will be discussed.

**TREATMENT RECOMMENDATIONS:** Are based on information gained from initial diagnostic procedures and previous experience and may vary for similar situations. Therefore, second opinions are often appropriate. The ultimate goal of treatment is to assist you in attaining optimum dental health and appearance. We will discuss with you the most appropriate and ideal treatment plan as well as reasonable alternative treatment plans. In those instances where supporting structures are compromised, recommendations can be made only after consultation with specialists. We will also inform you of the likely dental prognosis for each of these treatment plans and a dental prognosis if no treatment is initiated at this time.

**COSMETIC (AESTHETIC) CONSIDERATIONS:** It is our intent to contribute all of our technical and artistic capabilities to help you achieve your aesthetic expectations and to incorporate these factors in your final dental restorations. You are asked to provide your input during treatment, and an effort will be made to incorporate your wishes in harmony with the functional and physiological requirements of the restorations. You are certainly encouraged to bring with you any friend or relative during the final aesthetic consultations. After your approval, the restorations will be finalised, after which only very minor changes can be made. After the restorations are finalised, any moderate or major changes will require a redo of the major component of your care and will be at your expense. Some changes in appearance may be beyond the capabilities of restorative and prosthetic dentistry and may require orthodontics, oral maxillo-facial surgery, plastic surgery, or other adjunctive measures or otherwise limit your final aesthetic result.

**REFERRAL TO OTHER SPECIALISTS:** Dental restorative and prosthodontic treatment often requires concurrent treatment with other dental specialties such as:
*Periodontics:* Treatment of gum tissue and implant placement
*Endodontics:* Root canal treatment
*Anesthesiology:* Conscious sedation and vital medical monitoring in our office
*Orthodontics:* Straightening of teeth
*Oral Surgery:* Extractions, jaw surgery, bone grafting and implant placement

## FIXED PROSTHODONTICS

**VENEERS, CROWNS AND FIXED BRIDGES:** Dental crowns are restorations that cover up or cap teeth, restoring them to their natural size, shape or color. The crown not only improves function and appearance, but can also strengthen a tooth that might otherwise be lost. In some instances, a crown covering the entire tooth may not be necessary, and an inlay, onlay or porcelain veneer is recommended. Generally, an ***inlay*** restores the chewing part of a tooth without covering the cusps: an ***onlay*** restores the chewing part of a tooth including the cusps; and a ***porcelain veneer*** covers the front part of a tooth. For discussion in this document, the term ***crown*** *will* include inlays, onlays and porcelain veneer.

A fixed bridge is designed to replace teeth that have been lost. Aside from the obvious effects of missing teeth on personal appearance and mastication, there are other concerns. The normal pressure of chewing and stress can cause the remaining teeth to shift out of alignment, resulting in malocclusion and periodontal (gum) problems.

Dental crowns and fixed bridges are made of porcelain for optimum appearance and traditionally contain an inner layer of gold alloy for strength. Crowns or bridges made entirely of gold alloy may be more advantageous on back molars that do not require porcelain for appearance. Dental inlays and onlays can be made of porcelain or gold, and porcelain veneers are made without gold. Dental crowns and fixed bridges are attached to teeth with dental cement.

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## POTENTIAL PROBLEMS WITH FIXED PROSTHODONTICS

*Crowns and fixed bridges are used to treat problems of decay, fractured teeth, malocclusion and to protect teeth which have had root canal treatment. However, dental restorations are replacements for natural teeth and, as such, potential problems do exist.*

**ROOT CANAL TREATMENT:** Restoration of a damaged tooth with a dental crown can be used to protect the tooth and prevent root canal treatment. However, the need for a root canal filling may not become apparent until after the crown has been placed. A root canal filling replaces the dental pulp, the innermost part of the tooth. This treatment becomes necessary when the pulp is irreversibly injured or infected from the cumulative effects of cavities, fillings or cracks in the teeth and occurs approximately 6% of the time. It normally can be performed without remaking the dental crown. However, in some instances, the longevity of the bridgework may be compromised and replacement of the dental crown or fixed bridge will be necessary.

**PERIODONTAL (GUM) DISEASE:** Periodontal disease can occur at any age, with or without crowns or fixed bridges. Properly designed crowns and bridges aid in its prevention, as does good oral hygiene, regular cleaning and dental examinations, a healthy diet, and good general health.

**TOOTH PREPARATION:** Preparing teeth for dental crowns or fixed bridges requires removal of old filling material, tooth decay and damaged tooth structure. In addition, the removal of undamaged tooth structure is often required to make room for the porcelain or metal. Ordinarily, a reduction of approximately 1-2mm is needed to accommodate the thickness of porcelain or metal and much less for a porcelain veneer.

**PROVISIONAL (TEMPORARY) RESTORATIONS:** Provisional crowns and fixed bridges are used to protect the teeth and provide a satisfactory appearance while the new crowns and fixed bridges are being fabricated. Provisional restorations are usually made of acrylic resin and, as such, are not as strong as the final porcelain/metal restorations, and are attached to the teeth with a relatively weak cement to facilitate their removal at subsequent appointments. Therefore, it is important to minimize the chewing pressure on provisional restorations since they can be easily fractured and dislodged. If this does occur, call our office for a repair or recementation.

**PORCELAIN FRACTURES:** Porcelain is the most suitable material for the esthetic replacement of tooth enamel. Because porcelain is a "glass-like" substance, it can break. However, the strength of dental porcelain is similar to dental enamel, and the force necessary to fracture dental porcelain would usually fracture natural tooth enamel. Small porcelain fractures can be repaired, while larger fractures often require a complete new crown, veneer or fixed bridge.

**DARK LINES AT GUM TISSUE:** Sometimes dark lines appear at the gum line of porcelain crowns and fixed bridges. The dark line is the metal edge of the crown which is usually hidden under gum tissue, but if the gum tissue recedes, the metal will show. This can be prevented by using porcelain edges on the crowns and fixed bridges. In some situations for mechanical reasons, this design is not feasible.
Recession of the gum tissue may expose an area of the root of the tooth that is not covered by the dental crown or fixed bridge. If the root is a darker color than the crown, a dark area at the gum line will appear. This can be minimized by the use of tooth-colored filling material or placement of new crowns and/or fixed bridges that compensate for the new position of the gum tissue. In some instances, a periodontist can graft gum tissue to cover the area of recession.

**STAINS AND COLOR CHANGES:** All dental restorative materials can stain. The amount of stain generally depends on oral hygiene as well as consumption of coffee, tea and tobacco. Dental porcelain usually stains less than natural tooth enamel, and the stain can be removed at dental hygiene cleaning appointments. Natural teeth darken with time more than dental porcelain crowns. Therefore, at the time a new dental porcelain crown or fixed bridge is placed, it may have a good color match with adjacent natural teeth but less of a match as your natural teeth age.

**TOOTH WHITENING:** Whitening provides many people with a conservative method of lightening their teeth. There is, however, no way to predict to what extent a tooth will lighten. In a few instances, teeth may be resistant to the whitening process. Infrequently, side effects may be experienced, such as tooth hypersensitivity and soft tissue irritation. Crowns and Dental Treatments will not change colour over time. It is therefore recommended to whiten your teeth before any cosmetic crown work to ensure the work does not require replacement in the future if you were to then decide to whiten your teeth.

**TOOTH DECAY:** Tooth decay may occur on areas of the tooth or root not covered by a dental crown. If the cement seal at the edge of the crown is lost, decay may form at the juncture of the crown and tooth. If the decay is discovered at an early stage, it can often be filled without remaking the crown or fixed bridge. Tooth Decay around the margin of the crown is usually a key component requiring the replacement of the crown.

**LOOSE CROWN OR LOOSE FIXED BRIDGE:** A dental crown or fixed bridge may separate from the tooth if the cement is lost or the tooth fractures. Some loose crowns or tooth fractures will require a new crown or new fixed bridge or root canal or even removal of the tooth.

**TOOTH ROOT MOBILITY:** Tooth roots may become mobile if they are not strong enough to withstand the forces on natural teeth or on crowns and fixed bridges. This occurs when gum tissue and bone around the roots have severely receded or the biting forces are excessive.

**FOOD IMPACTION:** As with natural teeth, food may become lodged between dental crowns and under fixed bridges. Dental crowns and fixed bridges are often connected (splinted together), creating the need for specialized hygiene techniques. Also, gum recession may make food impaction unavoidable, even with the most ideal contour of dental crowns and fixed bridges.

**EXCESSIVE WEAR:** Sometimes crowns and fixed bridges are used to restore badly worn teeth. If the natural teeth were worn from clenching and grinding the teeth *(bruxism),* the new crowns and fixed bridges may be subjected to the same wear or even fracture. In general, dental porcelain and metal alloys wear at a slower rate than tooth enamel. However, excessive wear of the crowns or fixed bridges may necessitate an acrylic resin mouth guard (also called a protective occlusal splint or nightguard).

**TEMPOROMANDIBULAR (TMD) DYSFUNCTION:** Placement of dental crowns and fixed bridges inevitably changes the occlusion (bite). On rare occasions, the change may precipitate TMD symptoms, even if it technically improves the occlusion.

**TOOTH CRACKS:** When replacing old dentistry and when investigating cracks in teeth it becomes apparent that below surface cracks may require further treatment or sensitivity and toothache may occur. It is almost

impossible to always diagnose these areas before your treatment commences. Treatment may require crowning, root canal or even removal of the tooth in severe cases of tooth cracking.

**SENSITIVITY:** Sensitivity will occur in treated teeth. This sensitivity is usually transitional and settles within a period of a few days to one month. Prolonged sensitivity may occur for a number of reasons, and one treatment to alleviate severe sensitivity may be root canal treatment.

## REMOVABLE PROSTHODONTICS

Removable prosthodontics is the replacement of missing teeth with dentures that can be removed from the mouth. There are several types of removable dentures. They include (1) complete dentures supported by gum tissue, (2) partial dentures supported by gum tissue and remaining teeth, and (3) overdentures supported by roots of natural teeth or implants.

**MASTICATION, STABILITY AND RETENTION:** Removable dentures, under the best of circumstances, do not have the same chewing efficiency as natural teeth. The ability to masticate food depends on the *stability* and *retention* of the dentures. Stability and retention are affected by many factors, including the attachment of the dentures to natural teeth or implants, if any; the amount and type of bone, gum tissue and saliva; and the patient's dexterity and fit of the dentures.

**APPEARANCE:** Properly fitting dentures will support the lips and facial contours in a manner similar to natural teeth. Dentures can often be contoured to provide additional facial support. However, excessive lip and facial support from dentures may result in a "swollen" appearance and irreversible tissue damage.

**SPEECH:** Removable dentures cover areas of the jaws and palate that are not normally covered. The presence of acrylic resin, metal or porcelain in these areas requires adaptation of the tongue and lips for proper speech, which may require a period of time.

**DENTURE "CLICK":** Denture click occurs when the upper and lower denture teeth inadvertently contact during speech or mastication. To minimize this problem, denture teeth have to be repositioned to create more space between the upper and lower teeth. However, this repositioning will decrease the amount of lip and facial tissue support afforded by the dentures. Sometimes a compromise is necessary between full facial support and denture click.

**TASTE:** Taste buds are located on the tongue, which is not covered by removable dentures. Contrary to popular belief, there are no taste buds on the palate. However, the acrylic resin and metal of removable dentures may affect the taste of food, especially if the dentures are not properly cleaned.

**STAIN AND CLEANING:** The amount of stain on dentures generally depends on oral hygiene as well as the consumption of such items as tobacco, coffee and tea. Bleach should not be used to clean removable dentures, as bleach can corrode the metal portions of the dentures and severely fade the pink acrylic resin.

**DENTURE ODOR:** The pink acrylic portion of the denture is a plastic material with a microscopic amount of porosity which may collect debris and odor. Also, dental plaque with its associated odor may accumulate on dentures in the same manner as it accumulates on natural teeth. It is therefore imperative to thoroughly clean your dentures for the health of your gum tissue as well as the elimination of denture odor.

**CHIPPING AND WEAR:** Porcelain denture teeth have the slowest rate of wear and the highest stain resistance, but they have a tendency to chip. Slight chips can be polished, but larger chips usually require replacement of the porcelain tooth on the denture. Acrylic resin denture teeth have more resistance to chipping, but they have a tendency to wear down faster than porcelain. If wear adversely affects the appearance or occlusion, the acrylic resin teeth can be replaced. Chips and cracks of the pink acrylic resin portion can usually be repaired without remaking the denture.

**RELINES:** The shape and size of the gum tissue as well as the bone underneath it change with time. A reline procedure readapts the pink acrylic resin portion of the denture to the new shape and size of the gum tissue. Typically, a reline is necessary every three to five years. However, this will vary depending on many individual factors.

**NUMB LIP *(PARAESTHESIA):*** The nerve to the lower lip traverses throughout the lower jaw bone. If the bone covering the nerve is lost, the nerve will lie directly under the gum tissue. Pressure from a removable denture on this area may cause a numb lip in a manner similar to pressure on your elbow causing numb fingers. This problem requires selective adjustment of the denture base. In very rare and extreme situations, the nerve would have to be surgically repositioned.

**FOOD IMPACTION:** Removable dentures always have some space between the pink acrylic resin portion and the gum tissue. In addition, there is always some movement of the removable denture during mastication. These factors create a situation where food may accumulate between the denture and the gum tissue. Therefore, it is essential to remove the denture for cleaning on a periodic, daily basis. Removable partial dentures with metallic clasps may have additional food retention problems.

**DRY MOUTH:** The quantity of saliva may be adversely affected by some systemic problems, medication and/or radiation therapy around the head and neck. Lack of saliva may increase the irritation of a removable denture against the gum tissue, and lack of saliva can severely increase the incidence of tooth decay.

## IMPLANTS

It should be understood that some dental implant systems or specific applications are still considered experimental. Implant longevity depends on many factors: the patient's health, the use of tobacco, alcohol, drugs and sugar, oral hygiene, the amount of quality bone, surgical compromises, the degree of biting force, etc. As with any restorative procedure, the potential exists for the fracture of an implant component or loss of the implant from the bone. Alternatives to implants and treatment plan variations will be discussed with you after consultation.

After implant placement surgery, it is possible that the gum tissue that has been stitched together at the time of the surgery may fail to heal immediately and the line of repair may open slightly. To help prevent this, you should temporarily adhere to a soft diet and avoid pressure to the tissues by leaving the dentures out until initial healing is well advanced (usually 7-14 days). At that time your denture may be modified before resuming its wear. The denture must not be used after surgery until your dentist has modified it. This modification will occur after each phase of your surgeries. You can expect some discomfort during the initial healing following both phases of surgery. The estimated time between your Phase I surgery (implant fixture placement) and Phase II surgery (placing the parts that project through the tissue into your mouth) is three months in the lower jaw and six months in the upper jaw.

You may need frequent soft linings placed in your denture prior to construction of the permanent prosthesis. To promote good healing, you should inform your dentist of any sores or ulcers that persist for 3-4 days, or any uncovering of the fixtures after the first surgery.

## IMPLANT COMPLICATIONS

**You may possibly experience some of the following complications following implant treatment:**

1. Occasionally the individual fixtures may fail to integrate (i.e. they may not become firmly anchored in the bone). This is usually discovered at the time of the second surgery and often is the result of not strictly maintaining a soft diet during the interim between the first and second surgeries, or not returning for adjustments and additional soft linings should soreness and ulcerations occur. Any fixture that fails to integrate will be removed. At that time either a new fixture will be placed (followed by another three to six month healing time) or the prosthesis will be constructed on those fixtures that remain.

2. Fracture of abutment fixtures, screws and associated parts are rare but can happen. This could lead to the removal of the fixture, in which case you may need to have a different prosthesis constructed. It may be necessary to switch from a fixed to a removable prosthetic design.

3. Your appearance may be changed in terms of tooth contour and position and lip support. Appearance and speech changes are more likely with upper implants since it is necessary to leave the implant posts exposed for proper oral hygiene. If this creates an undesirable appearance an esthetic veneer can be made.

4. Eating excessively hard foods can lead to increased soreness under the conventional denture and possible fracture of teeth or fixture parts.

5. If the jaw joints or facial muscles are overloaded from excessively hard foods or you clench or grind your teeth, you may experience some jaw joint and facial muscular discomfort.

6. Cleaning the teeth and posts of the implant will be much different from cleaning a conventional denture. Although rare, abnormal tissue reactions and/or infections can occur around the implant parts if they are not kept clean. Like other dentures and bridges, the teeth may stain with excessive coffee, tea or smoking.

7. If your denture is of the removable type, the teeth or denture may be damaged if dropped.

8. There may be some initial discomfort around the implant post immediately after the denture is placed, which should eventually disappear.

9. The screws attaching the prosthesis to the fixture may loosen with time. They will need to be tightened if this occurs. This will sometimes require remaking your crowns at your expense.

10. When the teeth have worn down they will need to be replaced. This means your denture will be removed for a few days. This would, of course, be at your expense.

**THE ALTERNATIVES TO IMPLANT TREATMENT ARE:**

1. To not have any treatment.
2. To have a new conventional removable denture.
3. Other surgical procedures to improve residual ridge (with attendant risks and other problems).
4. Other types of implants placed (with attendant risks). In my opinion, the type of implant recommended is the best treatment for you at this time.

**FOR LONG-TERM SUCCESS OF IMPLANT TREATMENT YOU HAVE THE FOLLOWING RESPONSIBILITIES:**

1. Follow all instructions regarding soft diet and denture use during the healing after each phase of surgery.
2. Clean the implant posts and denture thoroughly as instructed.
3. Appear for periodic examinations as advised by your dentist. There is an additional fee for this service.
4. Exercise care in not abusing the prosthesis.
5. Advise your dentist immediately if any problems are noticed.

**MORE CONCERNS AND ANSWERS ABOUT DENTAL IMPLANTS: (Copied with Thanks from Dr Carl Misch)**

**The Purpose of this section:** The purpose of writing this patient information guide is to give you as much information as we can, and to present it as conveniently as possible. If you have any questions pertinent to any section of this guide, we ask that you write these questions in the left margin of each page. However, if you do not have any questions about anything on the page, please sign the bottom of the page to indicate that you have read, understood and have no questions concerning its content.

**What is an implant?:** An implant is a man-made replacement for the natural tooth root which allows a person to return to non-removable teeth or a more secure dental restoration. It is not a transplant which would be taken from another individual. There are several types of dental implants from which the doctor will select the most suited for your needs and general dental condition.

**How is an implant inserted?:** Although there are many types of implants, the types can be divided into two basic groups.

1. Those that are inserted INTO the bone. **(Almost 100% these days)**
2. Those that are placed OVER the bone.

In both instances, the implants are placed UNDER the tissue and extend into the mouth.

**Your Natural Teeth:** Your own natural teeth in a healthy, well-maintained condition are the best natural implant(s)

which you can possibly have. There is nothing else which compares with them. It is, therefore, in the best interest of your health and well-being to do anything you can to keep your teeth in the best condition for the longest possible period of time. With good care on your part, and with good frequent dental checkups, you will be able to accomplish this goal.

**Supplementing your Natural Teeth:** When a tooth is lost, it is best to replace the tooth with a non-removable replacement as promptly as possible. You are probably familiar with traditional "bridgework", which uses natural teeth as supports for bridges that span the space where teeth have been lost. Bridges do not have increased support which was present when the natural tooth was there in the mouth. The artificial tooth of the bridge does not have a root. As teeth are lost, the amount of available root support in the mouth decreases. In effect, we have increased the load on each remaining tooth because there are fewer of then. This can be compared with losing fence posts in a long fence. The fence is not any shorter, but there are fewer posts supporting the fence. The fence is no longer as strong as it was earlier. In the case of the fence, it is obvious that fence posts need to be added so that the amount of support will be increased, and similarly these areas in the mouth need more support (which can be provided by replacing the missing root structure with implants).

**Partial Dentures:** Does a removable partial denture replace the missing teeth equally as well? Partial dentures are either tooth supported or tooth and gum supported. An entirely tooth supported partial denture will fill the space, but the supporting teeth are no stronger than they were before. In other words, the stress has been increased on the remaining teeth. With many partial dentures which are both tooth and guns supported, the number of teeth has not increased, and once again, there is the same lack of root support as there was before. The areas where teeth are missing have been filled in with gum supported denture teeth. This means that the gum tissue and bone structure beneath these dentures will shrink gradually and the partial denture will have to be replaced or relined periodically. If these areas are not relined, then space develops under the denture. It is not bearing its fair share of the chewing load and the remaining natural teeth are carrying all of the chewing load. The teeth are overloaded. Under these conditions, the remaining teeth will undergo accelerated bone loss. Also, this partial denture is removable. It is not permanently fastened to the mouth as a permanent bridge is.

**Tooth Supporting Bone:** Nature has provided tooth supporting bone during the years when there are teeth present in the mouth. When the teeth are lost, the tooth supporting bone is also lost. Nature takes away from you what you do not use! For example, the person who is confined to bed for a long period of time loses his muscle tone. The muscles get soft and literally wither away. In the mouth, the bone under the gums shrinks, and dentures get loose. Notice in the mouth of a person who has lost half his or her teeth, the bone is present around the teeth which remain. Where the teeth have been lost, many times there is excessive bone and gum shrinkage. Where implants have been placed and properly maintained, the tendency is to preserve this bone because the bone is being used somewhat in the same way it was when the natural teeth were present.

**Your Chewing Efficiency:** For purposes of comparison, let us assume that patients with all of their own natural teeth in a healthy, well-maintained, functionally accurate condition can chew at 100 percent efficiency. However, with every tooth lost, efficiency decreases. How much decrease there will be is dependent upon whether or not the teeth are replaced and in what manner. Ultimately, if a person reaches the point where they have no teeth, and are using properly fitted dentures on an adequate bony ridge, a chewing efficiency of perhaps 15 to 18 percent may be achieved. If the ridges are not adequate, the percentage decreases. With implants and non-removable bridgework, or well supported tooth replacement methods, a person may get back to as high as 85 percent compared with what they had with their natural teeth, depending on the number of natural teeth present and their condition.

**Your Medical Examination:** This is an important part of treatment. If you have uncontrolled medical diseases, they often affect the healing of implants and also relate to how long they will last. Please make sure to inform us of any diseases, medications and allergies

**Your Home Care:** The dental care you provide yourself at home must be first-rate. You must keep your teeth and implants cleaner than you have ever done previously in your life. You must be able to use a toothbrush, dental floss, or other devices we recommend to keep plaque off both your natural teeth and the implants. If this is not done, there is a very good possibility that the implants will not succeed, and will have to be removed. Furthermore, smoking and/or excessive alcohol consumption are a deterrent to excellent dental health.

**X-Rays:** You will have a complete examination with x-rays which may include a panoramic x-ray or CT-scans of your entire mouth. X-rays are necessary for proper diagnosis during treatment and for follow-up after treatment is complete.

**Opposing Teeth:** The teeth or denture which are opposite to the implanted area are a very important consideration in the success of the implant(s). There must not be any grinding of the teeth at night (bruxism) against the implant(s). Care must be taken not to overload the implant(s) by chewing on hard objects such as ice, which could damage even your natural teeth. The patient should not engage in anything which. may cause damage to the implant(s) or the underlying bone, such as full contact sports.

**Loss of Nerve Sensation**: There are cases reported in dental literature in which there is temporary loss of nerve sensation following certain surgical procedures. This does happen sometimes, but is usually temporary. Motor nerves are never affected. Unfortunately, there have been instances where complete nerve sensation has not returned even after many years. There have been such occurrences following removal of deeply impacted wisdom teeth. It is possible that such a thing could happen with the placement of implants in the bone. It is usually temporary, and is a loss of nerve sensation only, not causing a dropping or sagging of the face.

**Are all Implants Successful:** No. There are many variables to be considered in placing the implant(s). First, the patient must be healthy. There must be adequate healing powers present in the patient. For example, if the patient is an uncontrolled diabetic, inconsistent healing could, complicate the procedure. If such a condition develops at a later date after the implant(s), this too may complicate the future of the implant(s). Second, a proper diagnosis must be made, and the proper implant placement and procedure must be selected for the individual patient. Third, the implant(s) must be treated properly by the patient. If the patient is neglectful, there could be complications. Fourth, if the patient is a heavy smoker or an excessive alcoholic beverage consumer, the success of the implant(s) will be affected.

**Will Implants last a lifetime:** Very few things do last a lifetime. There are some implants which have been in the mouth for as long as thirty years. This is not the average. The average expectancy is less and varies based upon numerous variables, such as the patient's health and proper maintenance. In the final analysis, whether they last a lifetime depends on how long you live and what age you are when the implant(s) are placed. Every natural tooth in the mouth of every living person will have one of two possible fates: it will either last until we die, or it will be removed at sometime. The same thing applies to implant(s).

***Is Age a Deterrent?:*** No! Health is the determining factor. Many people seventy and eighty years of age are a better surgical risk than someone years younger who has physical complications. Older individuals are more likely to need implants because they have lost more teeth, and have lost more supporting ridges. As long as

you live and breathe and are important to someone, including yourself, you owe it to them to take the best care of yourself that you possibly can. Incidentally, what is a good age for a hip replacement implant or a coronary bypass? If you needed either operation to stay alive or improve your quality of life, would you refuse because of age?

**Rejection by the body:** Implants are made of biologically compatible materials which have undergone extensive testing over a period of several years. Since these materials are largely metals, such as titanium, and surgical vitallium alloy, and have never been living tissue, there is no likelihood of causing an antigen-antibody response which could cause rejection similar to that which sometimes occurs with heart and kidney transplants.

**Cancer:** There is no instance reported in the dental or medical literature of dental implants being the cause of cancer.

**Cosmetics:** Are dental implants inserted for cosmetic reasons? Not usually. The primary objective of dental implants is to give additional support to the replacement teeth. Cosmetic enhancement is possible with the replacement teeth, however, your expectations should be fully discussed prior to treatment.

**The Guarantee:** There is no way that we can guarantee anything which goes into the mouth and which is under the control of the individual patient. Physicians do not tell you that the transplanted heart, kidney, or coronary bypass will keep you alive for any specified period of time. We can only tell you that we still strive to place the implant(s) properly, provide you with the information you need to help care for your implants at home and will be available for regular: periodic follow-up appointments to evaluate your continued dental health. We will do everything we can to make the implant(s) succeed, but you will. have to make the same commitment. If you do not keep your end of the bargain, the implant(s) will likely fail. Also, you must return to our office at regular intervals for examination and service according to our recommendations. If you do not do this, difficulties may arise, resulting in the loss of the implant(s). Due to the complex nature of oral implantology, it is important that all postoperative examinations and/or treatments be handled by this office. Referrals will be made only to those doctors with experience and training in implant dentistry.

**Is it Expensive:** Implant procedures, which vary in complexity and extent depending on the patient's dental condition and requirements, can involve a significant investment. A survey of 350 consecutive patients after completion of their implant treatment revealed that not only was it worth the investment, but that they would happily do it again.
**Will Insurance pay for implants:** Some dental procedures, implant surgeries and portions of implant surgeries are covered by dental and medical insurance policies. Our office personnel will assist you in obtaining these benefits.

**Will there be discomfort?:** Just as with any surgery, there can be some pain (discomfort). However, anesthetics and sedation virtually eliminate pain (discomfort) during the actual surgery. Postoperative pain (discomfort) will be similar to that of having teeth removed. Patients will be provided with medication to alleviate this pain (discomfort).

**How much time does this take?:** It depends on your condition and needs, and the extent of the work involved. Individual operations may take from one half-hour to several hours. There may be as few as one operation, or a series of operations and follow-up visits, which would be scheduled over a period of months to insure proper healing.

**How long will I be off work:** Generally, we recommend the day of surgery, plus the following day or two off for recovery. You can expect to have some swelling, pain (discomfort), possibly some bruising. The time taken off from work is really an individual decision.

**The decisions:** If you have decided that you want to be considered as an implant candidate, you can be encouraged by the fact that there are many others in this country and throughout the world who have had dental implants, cornea, kidney, heart transplants, and pin implants in the hips, with excellent results.

## TEMPOROMANDIBULAR DYSFUNCTION

Pain or clicking in the region of the jaw joint *(temporomandibular dysfunction or TMD)* may occur at any time during one's life. Usually multiple factors cause this condition. In many instances, jaw muscle spasms are the cause of the pain. Sometimes actual joint pathology, such as arthritis, may be present.

In addition to problems with the joints themselves, TMD symptoms may be perpetuated by the habit of clenching or grinding the teeth *(bruxism),* which can occur even with optimum occlusion, normal joints and proper musculature. The emotional state of a person predisposed to this problem has a direct relationship to temporomandibular pain, so that the pain and/or clicking may fluctuate with the emotional state of the individual.

**OCCLUSAL DIAGNOSTIC SPLINT THERAPY:** Initial treatment with an occlusal and muscle therapy is considered an appropriate conservative and reversible approach. An occlusal diagnostic splint, also known as a bite splint, is used to determine if improvement of the occlusion or a repositioning of the jaw would improve the symptoms. If improvement is achieved with the splint, the occlusal splint may be worn continually or the occlusion corrected to eliminate the need for the splint. Occlusal splints are usually made of acrylic resin and, as such, are subject to breakage and wear; they are intended for relatively short-term use.

Correction of the occlusion may require selective grinding on the chewing surfaces of the natural teeth, crowns of fixed bridges, or may require orthodontic treatment by an orthodontist and/or surgical repositioning of the jaws or teeth by an oral surgeon.

Treatment of the musculature associated with TMD includes exercises, medication, physical therapy, acupuncture, biofeedback, nutritional counseling, ice packs, immobilization, etc. Severe TMD problems may require a coordinated treatment plan with other health professionals.

## IN GENERAL

**ANAESTHETICS:** Most procedures are performed with a local anesthetic (commonly referred to as *Novocaine).* In addition, sedative and pain medications can be used to help minimize anxiety and discomfort. In rare instances, allergic reactions may occur, so you are requested to inform our office staff of any known allergies you may have. Local Anaesthetics, reportedly on extremely rare occassions cause permanent damage to neurosensory perception associated mainly with the lower jaw. This may result in permanent or temporarily nerve paralysis. Some sedative or pain medications may cause drowsiness. Therefore, when these medications are used, you would need to make arrangements for transportation with another person to and from the office and for someone to care for you after your appointment. We do use Intravenous Sedation, also known as Twilight Sedation. A qualified Anaesthetist will provide these services at an additional cost to your dental care. The drugs used will have an amnesic effect and you will require someone to accompany you home and also to look after you for the rest of the day. Complications do rarely occur and any concerns should be discussed in your pretreatment consultation with the Anaesthetist.

**PROSTHODONTIC TREATMENT DURING PREGNANCY:** Elective procedures or procedures that can be easily postponed should generally wait until after childbirth. Treatment of dental pain and urgent procedures can be performed with relative safety to the fetus by minimizing the use of medications and avoiding the use of nitrous oxide and other medications with known fetal effects. Therefore, it is essential that you inform the dentist of a confirmed or suspected pregnancy.

## OUR TREATMENT GUARANTEE

Any Dental Care you have performed is subjected to extreme environments inside your mouth, and as such any type of Dental Care has its risks. It is by managing these risks, using appropriate technology and materials, and taking the best care possible, your Dental Work will last as best possible.

Sometimes un-planned things happen, whilst driving, a car tyre may get a nail through it, or our car wind-screen may get hit by a rock. For our mouth, traumatic experiences like these cannot be protected against, however through proper planning and applying proper science and mechanical principles to our teeth, a long-lasting result can be expected. We wouldn't expect your car tyres to wear prematurely because of uneven wear when they are being properly monitored and checked at regular intervals.

**DENTAL PLANS:** Where a sub-optimal Smile Artistry Dental Plan is performed due to patient preference, your Smile Artistry Guarantee may be invalid. It is our philosophy of care to provide early intervention dental care which results in early treatment of smaller problems in an aim to prevent more major treatments in the future.

**DENTAL IMPLANTS:** Through long-term literature reviews and through our experiences, life expectancy of crownwork, dental implants, and dental implant dentures or bridges are largely dependent upon patient hygiene, short and long-term hygiene/cleaning and checkups and grinding damage. Dental Implant Fixtures have a greater than 90% survival rate at 20 years in non-smokers. Non-smokers will be guaranteed for a period of five (5) years from the Dental Implant Surgery date to withstand normal chewing and bite forces. Smokers have an increased risk of Dental Implant Disease which could result in the loss of a Dental Implant. Due to the increased risk of failure of Dental Implants in Smokers no guarantee is given where a patient is smoking during the first six months following the Dental Implant Surgery, or where we diagnose bone loss or gum disease around an implant. Bone Grafting Procedures, depending on severity can be predictable but may require more than one stage. The further the bone is being grown, the more likely that more than one procedure will be required. Smoking is a contra-indication to Bone Grafting Procedures during the initial healing phase. Fixed Dental Implant Bridges in Resin Teeth will require a reset of new teeth every three-eight years. The patients is responsible for the reset cost as this is normal wear. Removable Dental Implant Dentures require a reline on an annual basis due to the extra forces generated.

**MAJOR DENTAL - LIFE EXPECTANCY: Whilst this can never be guaranteed or even predicted,** International research suggests that the average life expectancy of cosmetic reconstructive procedures should be 8 to 15 years. This can only occur if regular maintenance and review of the foundation health is carried out on a 3 to 6 monthly basis.

**PROSTHODONTIC CARE:** Crowns, Veneers, Inlays, Bridges will be guaranteed for a period of five (5) years from the seat or insertion date to withstand normal chewing and bite forces. Should a restoration break during this five (5) year time period, Smile Artistry will replace it for the 'fabrication costs' only. After the five (5) year period, the patient will assume the full and most current costs for any restorations that need to be replaced. To prevent the risk of Porcelain Fracture, in un-cosmetic areas of your mouth, gold surfaces are recommended in patients who

grind or exhibit wear patterns and lack a protective bite scheme. It is a condition of this warranty that it is essential that (at least) six monthly maintenance appointments are carried out and a protective splint is worn nightly (where recommended).

**INVISALIGN:** Invisalign Treatment Results depend highly on Patient Compliance and wearing the aligners for 22+ hours per day. In the instance the aligners are not worn sufficiently, treatment will fall behind and may need to be started again. New Impressions have an additional cost of $600 if treatment needs to start again. One set of retainers is included in the treatment cost for Invisalign. This includes a fixed upper and lower wire and a clear aligner to be worn at least in the evenings when sleeping. Where aligners and retainers are not worn, there is no guarantee that tooth movement and relapse may occur.

**DENTURES:** Dentures and Dental Implant Bridges will be guaranteed for a period of three (3) years from the seat or insertion date to withstand normal chewing and bite forces. Should a breakage occur during this three (3) year time period, Smile Artistry will replace it for the 'fabrication costs' only. Normal wear of Denture Teeth can increase due to the extra force generation with dental implants. This normal wear is not covered in this warranty. After the three (3) year period, the patient will assume the full and most current costs for any damages that need to be replaced. Dental Implant Dentures will require relines on a six-twelve monthly basis due to the increased comfort and biting forces. The cost of relines will be the responsibility of the patient.

**FILLINGS:** Our practice uses exclusively White resin Based Fillings. Our fillings are guaranteed for one year. This excludes breakage of the filing when the filling is moderate to large in size. In these instances it is often recommended to have Porcelain Crown/Porcelain Onlays/Porcelain Inlays which are both stronger and longer lasting.

**ALL TREATMENTS:** Your bite and occlusion is continually changing. We need to see you routinely every six months to ensure that as your bite and teeth move, individual teeth do not become unevenly loaded, leading to a higher risk of damage to your dentistry. In the event of regular 4 or 6 monthly maintenance visits not being attended and a protective night time splint is not worn consistently when recommended, this guarantee will be null and void.

**Smile Artistry™ Dental Practice**
General Dental | Cosmetic Dental | Implant Dental | Hygiene

*We require that you be given certain information and that we obtain your consent prior to beginning any treatment. What you are being asked to sign is a confirmation that we have discussed the nature and purpose of the treatment, the known risks associated with the treatment, and the feasible treatment alternatives; that you have been given an opportunity to ask questions and that all your questions have been answered in a satisfactory manner.*

**INFORMED CONSENT AND AUTHORIZATION**

I certify that I have read and understand all pages of the *Informed Consent* which outlines the general treatment considerations as well as the potential problems and complications of restorative/prosthodontic treatment.
I understand that potential complications and problems may include, but are not limited to, those described in this document.
I understand that during and following the contemplated procedure, conditions may become apparent that warrant additional or alternative treatment pertinent to the success of comprehensive treatment.
Recognizing the potential problems and risks of restorative/prosthodontic treatment, authorization is given for dental treatment to be rendered by the dentist and office staff.
I also approve any modification in design, materials or care, if it is felt this is for my best interest.
In addition, I consent that photographs and/or videos of the procedures may be shown for teaching or advertising purposes.

**SIGNED:** _____ **DATED:** _____

With Thanks to **John C. Kois**, DMD, MSD for providing the details contained within this document.

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