

Kentucky law requires Informed Consent for medical and dental treatment.

## INFORMED CONSENT

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.

**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, (3) x-rays, (4) plaster casts of the mouth and teeth, (5) examination of the mouth and associated structures, (6) photographs, (7) conference with the previous or concurrent treating health professionals. If additional diagnostic procedures or consultations are indicated, they will be discussed with you.

**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 is no treatment is initiated at this time.

**ESTHETIC CONSIDERATIONS:** It is our intent to contribute all of our technical and artistic capabilities to help you achieve your esthetic 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. After restorations are finalized, only minor changes can be made. Some changes in appearance may be beyond

the capabilities of restorative and prosthetic dentistry and may require orthodontics, oral-maxillofacial surgery, plastic surgery, or other adjunctive measures. Ideal esthetics may never be possible because of pre-existing conditions.

**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

*Orthodontics:* Straightening of teeth

*Oral Surgery:* Extractions, jaw surgery, jaw augmentation, and implant placement

## **FIXED PROSTHODONTICS**

**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* 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 the tooth including the cusps; and a *porcelain veneer* covers the front part of the tooth. For a discussion in this document, the term *crown* will include inlays, onlays and porcelain veneers.

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 either all porcelain, porcelain over an inner layer of gold, or all gold. All porcelain are used for optimal appearance, however, they are not as strong as porcelain over an inner layer of gold. All gold are the strongest and 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.

## **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. Root canals are a highly successful treatment to save teeth. Approximately 95% of root canals are successful, but if a root canal is unsuccessful, it will require tooth extraction.

**FRACTURED ROOTS OR TEETH:** Occasionally, tooth structure will fracture or break underneath a crown, which could require a new crown, a root canal, or extraction, depending on the severity of the fracture.

**PERIODONTAL (GUM) DISEASE:** Periodontal disease (*pyorrhea*) 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 porcelain or metal. Ordinarily, a reduction of approximately 1/16<sup>th</sup> of an inch is needed to accommodate the thickness of porcelain or metal and much less and sometimes none for porcelain veneers.

**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 re-cementation.

**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. Chewing ice, using teeth as tools, or teeth grinding can cause cracks in porcelain that will lead to fractures. If your natural teeth are chipped or worn, you are at a higher risk to fracture porcelain. 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. This can be prevented by using all porcelain crowns or veneers or 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. Natural teeth may require bleaching as they age.

**BLEACHING:** Bleaching 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 bleaching process. Infrequently, side effects may be experienced, such as tooth hypersensitivity and soft tissue irritation.

**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.

**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.

**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.

**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.

## IMPLANTS

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. The screws attaching the prosthesis to the fixture may loosen with time. They will need to be tightened if this occurs. Alternatives to implants and treatment plan variations will be discussed with you after consultation with the surgeon who will place the implants and continue to monitor their status.

## 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, or 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.

**ANESTHETICS:** Most procedures are performed with a local anesthetic (commonly referred to as *Novocain*). 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. 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.

**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.

### **COMMENT**

State law requires that you be given certain information and that we obtain your consent prior to beginning any treatment. By beginning treatment, you are confirming 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.

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