

## CONSENT FOR SINUS AUGMENTATION

**PURPOSE OF SINUS AUGMENTATION:** The purpose of dental implant is to allow for my periodontist to install anchors into the jaw onto which functional artificial teeth can be connected. The key to a successful and long-lasting dental implant therapy is the quality and quantity of jawbone to which the implant is attached. In the upper jaw, the sinus cavity is normally located above the roots of teeth in the rear portion of the mouth. The sinus cavity is lined by mucosa which resembles the lining of the mouth and the nose. If inadequate bone volume is available for stable anchorage of dental implants, bone augmentation within the floor of the sinus cavity can assist in creating adequate bone to support the implants.

**DIAGNOSIS:** After a careful oral examination, radiographic (X-ray) examination of my oral conditions, my periodontist has advised me that the quantity of bone in the upper posterior jaw is not adequate to support an implant.

**RECOMMENDED TREATMENT:** To treat this condition, my periodontist has recommended bone augmentation in the floor of the sinus for support of dental implants. I understand that sinus augmentation involves a surgical procedure.

**SURGICAL PHASE OF THE PROCEDURE:** Intravenous (IV) medications may be utilized for sedation as a form of anesthesia. Oral sedation may be an alternative. Local anesthetics will be administered to achieve comfort as the sole form of anesthesia or in conjunction with either IV or oral sedation.

There are two forms of sinus augmentation:

1-Crestal osteotomy (internal/closed sinus lift): involves creating a hole through which an implant is placed. Bone graft material is introduced through the same hole to raise the sinus mucosa. This will position the bone graft so that when the implant is placed, there is grafted bone available at its tip.

2- Lateral window sinus lift: The second option is to create a window on the side of the cheek to gain entry to the sinus. The lining of the sinus is gently pushed away, and bone graft material is placed within the bottom portion of the sinus cavity.

Additional surgical options include A) flap surgery (to surgically open the gum to gain direct access to the bone region for sinus augmentation and/or implant placement or B) flapless surgery, which is to operate through the gums without direct incision or opening the gums. The decision as to whether to open the flap or not is usually made based on whether this access will be helpful to perform the procedure.

A variety of bone graft material and other biomaterial may be used, including allograft (human donor derived bone), xenograft (processed bone minerals derived from animals such as bovine or cow bone, etc). Collagen may be used in the form of a barrier or sponge. This material is usually derived from porcine (pigs) or bovine (cow) sources.

Blood concentrates are sometimes used, where my blood will be drawn and centrifuged to separate fractions which are useful to the healing process, such as the platelets, fibrin and white blood cells. Biologics such as recombinant platelet derived growth factor or recombinant bone morphogenetic protein may be used during surgery.

Dental implants may or may not be placed simultaneous on the same day as bone augmentation. During surgery, my periodontist may discover unfavorable conditions or diseases, such as inflammation, infection, presence of foreign bodies or objects, poor bone quality or contour, cysts or polyps. These conditions may require my periodontists to make decisions that are based on clinical judgement. The plan may have to change based on the findings observed during surgery.

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Based on the conditions present at the time of surgery, my dentist may choose to abort the original plan and not proceed with bone augmentation and or implant placement.

The sinus lining or membrane may be punctured or torn during the procedure. My dentist may take some steps to repair the damaged sinus lining or membrane.

To allow the area to heal, the gum and soft tissue will be stitched closed over or around the implant or a healing cap or abutment will be placed to keep the area accessible.

My doctor may recommend either a removable temporary, fixed temporary and in some cases no temporary teeth to allow for healing.

I understand that healing will be allowed to proceed for a period of several weeks or months.

I am responsible to carefully follow the after-care recommendations provided, including taking the prescribed medications, such as antibiotics, steroids, pain relievers or any other supplements to keep my checkup appointments in between. I am required to maintain good oral hygiene, including toothbrush instructions provided, oral rinses prescribed or recommended.

I also understand that I am responsible to come for follow-up appointments to monitor the healing and provide any after care treatment or recommendations. Failure to follow the instructions, recommendations or come for follow-up visits may lead to adverse outcomes, such as infection, graft failure, implant failure, as well as many other unintended consequences.

#### **PRINCIPAL RISKS AND COMPLICATIONS:**

I have been informed of and understand the potential risks related to this surgical procedure include but are not limited to:

- Pain, swelling, bleeding, infection, bruising, delayed healing, scarring, damage to other teeth and/or roots that may result in the need for tooth repair or loss, loose tooth/teeth, damage to dental appliances or crowns, cracking and/or stretching of the corners of the mouth, cuts inside the mouth or on the lips, jaw fracture, stress or damage to the jaw joints (TMJ), difficulty in opening the mouth or chewing, allergic and/or adverse reaction to medications and/or materials;
- Nerve injury, which may occur from the surgical procedure and/or the delivery of local anesthesia, resulting in altered or loss of sensation, numbness, pain, or altered feeling in the face, cheek(s), lips, chin, teeth, gums, and/or tongue (including loss of taste). Loss of some senses, including the sense of smell or vision. Such conditions may resolve over time, but in some cases may be permanent.
- Dry socket (slow healing) resulting in jaw pain that increases a few days after surgery.
- Sharp ridges or bone splinters may form where the tooth was removed possibly requiring additional surgery.
- Accidental swallowing of foreign matter
- Part of the tooth and/or roots may be left to prevent damage to nerves or other structures.
- An opening may occur from the mouth into the nasal or sinus cavities.
- Injury to nearby blood vessels, salivary glands or ducts.
- Loss of function and/or weakness of facial expression muscles possibly affecting my appearance. Such conditions may resolve over time, but in some cases may be permanent.
- Permanent loss of feeling or pain if removal of part or all of a nerve is necessary.
- Severe bleeding, both during and after surgery, that may require a blood transfusion.
- Abnormal, enlarged, or cosmetically displeasing scars may occur within the skin and deeper tissue, sometimes requiring additional surgery. Some scarring may be permanent and always be visible

The exact duration of any complications cannot be determined, and they may be irreversible.

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There is also potential for complications that may occur around implants that may manifest after a period. These may be inflammatory diseases called peri-implant diseases. These may occur because of poor oral hygiene, inappropriate restoration design that collect bacteria

I understand that some patients do not respond successfully to dental implants and in such cases the implants may fail. Implant surgery may not be successful in providing artificial teeth because each patients condition is unique, long term success may not occur. In most instances, where an implant fails, it may be possible to place another implant as replacement in the same area or nearby area. In other circumstances, it may be deemed that implants will not be successful so that other alternatives to implant therapy may be recommended.

Smoking is a substantial factor in increasing complications such as post-operative infections, graft failure and peri-implant diseases. I have been informed by my dentist that it is best to completely refrain from smoking. However, smoking cessation does not always reverse some of the adverse changes to the local tissues or immune system and the risk factors from history of smoking may continue to compromise outcomes.

My medical health such as diabetes, as well as medications that are prescribed for various conditions such as osteoporosis, autoimmune diseases, cancer, hypertension, etc may have substantial effects on healing after surgery or after implant therapy. These conditions, in particular medications used for osteoporosis may cause poor healing and, in some cases, necrosis (death) of jawbone. This may cause long-term impairment of the jawbone. When multiple risk factors are combined such as medications with adverse healing, diabetes, and or smoking, the risks may exponentially increase. I understand that the design and structure of the prosthetic appliance also known as the tooth restoration can be a substantial factor in the success or failure rate of the implant. If the restoration is made by another dentist, my periodontist may not be responsible for complications that may arise from restorations that may not be optimal.

I further understand that alterations made on the artificial appliance also known as the tooth restoration or implant can lead to the loss of one either the artificial appliance also known as the tooth restoration or implant or both. This loss would be the responsibility of the of the person making such alterations. I am advised that the connection between the implant and the tissue may fail, and it may be necessary to remove the implant and can happen at any phase.

I understand that the event there are adverse consequences of surgery, there may be additional procedures that may be necessary to correct or improve the conditions. There may be additional surgeries or procedures performed by my periodontist or other health care professionals such as other dentists or physicians such as ear-nose-throat (ENT) specialists. The cost for such additional therapy may have to be the responsibility of the patient.

#### **ALTERNATIVES TO SUGGESTED TREATMENT:**

I understand and it has been explained to me that there are alternative treatment options. Alternative treatments for replacement of missing teeth include no treatment, new removable appliances (partial denture), and other procedures depending on the circumstances. However, continued wearing of ill fitting and loose removable appliances can result in further damage to the bone and soft tissue of my mouth.

#### **NECESSARY FOLLOW UP CARE AND SELF CARE:**

I understand that it is important for me to continue to see my regular dentist or prosthodontist, but I also understand that it is necessary for me to see my periodontist at Brighton Periodontal and Implant Group on an interval recommended to me for maintenance care and follow up. The follow up and the

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implant maintenance is not a part of the treatment plan, and I am responsible for the cost. If I have not been seen for over a year in Brighton Periodontal and Implant Group, I understand that they are not liable for any damages to the implant or surrounding bone.

Implants like natural teeth and appliances must be maintained daily in a clean and hygienic manner. Implants and appliances must be examined periodically and may need to be adjusted. I understand that it is important for me to abide by the specific prescriptions and instructions given by my periodontist.

**HEALTH HISTORY:**

I have been informed that smoking, non-moderate alcohol use, as well as other underlying health problems (e.g., diabetes) that have not been adequately controlled by my physician may adversely affect the healing of gum tissues, the bone and survival of implants.

I submit that I have provided an accurate account of my health history and have listed all my medications. To the best of my understanding, I have not withheld any information regarding my medical, dental, or mental health.

I will inform my dentist and periodontist about any changes in my health and medications.

**FINANCIAL RESPONSIBILITY:**

The fees quoted by my periodontist include the surgical procedures and work up to be performed and does not include the fees for any restorative work unless specified in the contract. I understand that restorative components and construction of the crowns, temporary teeth, bridges, and dentures will be carried out and is payable separately.

I understand that I have been advised to get a quote from any other dentist (general dentist or prosthodontist) who may be restoring the implants prior to getting any work started so that I can get a general idea of the overall fees for both the surgical and restorative treatment.

**NO WARRANTY OR GUARANTEE:**

I hereby acknowledge that no guarantee, warranty, assurance has been given to me that the proposed treatment will be successful. Due to the individual patient differences however, a periodontist cannot predict the absolute certainty of success. There exists the risk of failure, relapse, additional treatment, or worsening of my present condition, including the possible loss of certain teeth despite the best of care.

If the implant fails, we may offer to replace the implant at no charge to the patient, but we don't reimburse the patient.

**PUBLICATION OF RECORDS:**

I authorize photos, images, videos, audios, slides, x-rays, or any others viewing of my care and treatment during or after its completion to be used for educational activities and may be presented by my dentist to others. These images and videos may be used in promotional material. My identity will not be revealed to the public, without my permission.

**PATIENT CONSENT**

I have been fully informed of the nature of the procedure to be utilized, the risks and benefits of surgery, the alternative treatments available, and the necessity for follow-up and self-care. I have had an opportunity to ask any questions I may have in connection with the treatment and to discuss my concerns with my periodontist. After thorough deliberation, I hereby consent to the performance of surgery as presented to me during consultation and in the treatment plan presentation as described in this document. I also consent to the performance of such additional or alternative procedures as may be deemed necessary in the best judgment of my periodontist.

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I CERTIFY THAT I HAVE READ AND FULLY UNDERSTAND THIS DOCUMENT.

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

\_\_\_\_\_  
**Printed Name and Signature of Patient or Guardian**

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**Date**

\_\_\_\_\_  
**Printed Name and Signature of Witness**

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