ABSTRACT
A 45 year old male presented with a missing lower incisor and obvious severe tooth wear. This scenario often results in a typical remedial solution of replacing the lower missing tooth with an implant/crown or a fixed bridge. Visual presentation using BiteFX animations combined with a complete examination enhanced the patient’s understanding. The resultant comprehensive treatment plan greatly benefited the patient, enhanced the practice’s image in the community and profoundly affected productivity.

PATIENT HISTORY – Grinding loosens tooth, falls out, but periodontally sound mouth.
The patient was aware of tooth grinding while working in his cabinet shop and knew his lower tooth had become increasingly mobile over time. A very mild trauma to the lower teeth loosened the tooth so that he removed it himself with little effort (Fig. 1). His mouth was periodontally sound, had no caries and only several posterior gold crowns which he stated were placed after his molars fractured. The patient came to my office ostensibly to have a limited treatment to reconstruct the missing tooth.

PATIENT CONSULTATION WITH BiteFX – Easy to gain patient acceptance of full exam.
After a brief visual inspection and prior to the examination, several animations from BiteFX were used to give the patient insights on the type of examination that would be performed, including lack of anterior guidance and what normal canine guidance should look like (Fig. 2 & 3). I also discussed how occlusal disease is unfortunately ignored by many practitioners. Knowing this patient, like most others, had never experienced a complete occlusal exam, I used the BiteFX animations and photo gallery to make the exam findings relevant. BiteFX also demonstrated to the patient our practice commitment to diagnosing all forms of dental disease.

Before beginning the exam, the patient quickly became aware of the true extent of his problem, and asked how to solve it. As a result, it was easy to gain patient acceptance of expanding the exam to include obtaining bite records, face bow transfers, intraoral photography and mounted study models.

TREATMENT – Restoration, veneers, implant, crown, extending to restoring posteriors.
The patient’s chief complaint was the missing lower incisor. He understood the need to restore his upper teeth to create anterior guidance. Initial equilibration was performed to allow CR to coincide with his acquired bite (MIP). The following bullet points highlight the course of treatment:

- A composite mock up was performed chairside to restore his upper anterior teeth to their original unworn shape and size (Fig. 4).

- The mock up was used for the provisional matrix impression, and the teeth were prepared for veneers. Final impressions, bite records and shade selection were created. Final restorations were feldspathic porcelain.

- A Biohorizons™ 3.5 x 12 mm internal implant was placed at time of final impression at the end of the restorative appointment.

- After implant integration, the client opted to restore his implant crown and additional seven lower anterior teeth to color harmonize with the uppers. Conservative minimal prep feldspathic veneers were used, and an all-ceramic crown was used on the implant.

- Ultimately the client chose to restore his remaining posterior teeth to complete the color changes to all teeth, and obtain anatomically shaped teeth as his natural teeth were ground flat (Fig. 5).
RESULTS — BiteFX helped extend treatment plan from single tooth to full mouth.

The patient granted permission to meet on another day in order to properly evaluate the findings, present a diagnosis and make the required treatment recommendations. Because the patient was able to clearly understand his dental problem with the aid of BiteFX animations, the treatment plan was extended well beyond a simple replacement as described in the Treatment section above. The client was extremely pleased with his results.

DISCUSSION — Financial and qualitative impact of BiteFX.

- Before acquisition of the BiteFX product, presentation of occlusal problems were difficult and patient understanding frequently poor.

- BiteFX allowed me to convey clearly and convincingly to this patient the cause of his problems, resulting in a $35K comprehensive treatment plan as compared to a $3500 plan that might otherwise have been requested to solely address the primary complaint.

- The presentation software is very simple and easy to present for me and my staff.

- The design of BiteFX allows me to automatically or manually control animation sequences.

- The ability to add individual patient images and present them with the animations enhances my consultations and has greatly increased my case acceptance rate.

“When I read a previous testimonial that BiteFX paid for itself on the first case presentation, I thought it would be worth a try. On my second time using it for a case presentation, it did pay for itself ... 35 times over!”

-Robert R. Cowie, DDS Jacksonville, Florida

“Thanks for the BiteFX software. It is absolute magic and just what I have been wishing for, for the past 20 years! Brilliant, thanks for making my life easier and helping patients too!”

-Charley Varipapa, DDS Alexandria, Virginia

“There isn’t a day that goes by that I am not thankful for the use of the Bite FX to show my patients. It is so helpful.”

-TJ Bolt, DDS Omaha, Nebraska
Developed by Dynamic Thought® and Don Reid DDS, the BiteFX™ animation software provides the dental professional with a simple to use, easy to present graphic tool for presentation of malocclusion concepts to the dental patient. BiteFX is compatible with Windows operating systems.

ABSTRACT

Incorporating BiteFX is an essential element of the new patient exam. BiteFX is a software consultation product used to explain complex occlusal issues to patients. I used this product the very next day after purchasing it in November 2005. Since then I have used BiteFX with hundreds of patients as an educational tool. Using BiteFX animations, the patient is able to understand what is occurring in their mouth and with their overall oral health. This understanding allows me to complete the necessary dentistry that is required to restore their mouth to full health, and has added significantly to my practice revenue stream.

This case study will discuss several patients where BiteFX allowed me to successfully explain occlusal disease and subsequently have the patient accept treatment.

PATIENT ONE – BiteFX plants the seed for staged treatment.

This first patient came in with a lot of chipped bonding and abfractions, and was unhappy with how her smile looked (Fig 1). She did not understand why I would be able to fix her mouth when other dentists had also repaired her bonding to no avail. Using BiteFX, I was able to show her what was going on with her bite. I used animations related to ideal occlusion, joint positions and equilibration showing where the normal tooth contacts and joints should be (Fig 2). Following the examination, I flipped back and forth between BiteFX and patient photos to explain what was happening and how it related to her mouth.

BiteFX enabled me to present to the patient conservative treatment options and begin her treatment to correct her bite first. Although the treatment was limited to equilibration and treatment of cavities, the seed was planted and she went away to think about the next treatment steps. Four years later she returned and agreed to stage treatment resulting in direct resin bonding of 10 teeth at her request. The patient is currently stable, comfortable and has no recurring problems (Fig 3).

PATIENT TWO – Provided the patient with important understanding of causes of tooth wear.

Patient two presented with worn lower and upper anteriors, and was consequently shy to smile (Fig 4). Using BiteFX, I explained why his teeth were wearing. With BiteFX, the patient could see and understand why his bite was off, why teeth were worn and chipping and what kind of treatment would be performed from an occlusal standpoint (Fig 5).

Treatment consisted of diagnostic models and bite registration with a deprogrammer in place. A face bow was used to mount the models onto a Panadent articulator. A diagnostic equilibration was done on articulator mounted models. A simulation of the final teeth appearance was created using wax to ensure it would work with the bite for final acceptance by the patient. The intra-oral equilibration was then performed and broken crowns on the back teeth were repaired. All ceramic crowns were used to restore the four anterior teeth in direct composite bonding was used to restore his cuspids (Fig 6). The patient intends to have his lowers repaired at a later date.

*Special arrangements can be made for those wishing to use the animations on Macintosh systems.
PATIENT THREE – BiteFX helped gain acceptance of his comprehensive treatment plan.

A patient presented to the office with the complaint that his wife didn’t like the way his teeth looked (Fig 7). He had been going to another dentist but never received an explanation why his teeth were continually wearing. Using BiteFX, I was able to explain clearly to the patient why his teeth were worn using a diagnostic wax-up to show the problems with his mouth. Again, BiteFX helped me present and gain acceptance of a comprehensive treatment plan (Fig 8).

Initial treatment steps were performed similar to patient two. Equilibration was performed and provisional restorations were placed on the upper anteriors. The lower arch was restored along with an increase of the vertical dimension. The upper arch was then restored with porcelain veneers and crowns. Gold crowns were placed on the second molars for stability of occlusion to eliminate any porcelains fractures (Fig 9). Upon completion of treatment, the patient was fitted with a custom nightguard which is worn every night. Both he and his wife are very satisfied with the final results.

DISCUSSION – Financial and Qualitative Impact of BiteFX.

- BiteFX has paid for itself many times over, resulting in at least a 10 to 15% increase in practice revenues.
- BiteFX gives credibility to what I say — the very existence of a sophisticated software program that shows the occlusal concepts the dentist is trying to explain provides the patient with confidence that I’m not trying to sell them unnecessary treatments.
- BiteFX has produced a higher number of comprehensive treatments for my practice.
- Compliance is better when the patient fully understands their occlusal issues, treatment, and follow-up recommendations.
- Even when a patient is not ready for immediate commitment to comprehensive treatment, BiteFX helps plant the seed that results in the patient returning at a later time to complete the recommended treatment.
- It is always better to have the patient desire the appropriate treatment as opposed to trying to sell something that the patient does not understand.
CASE STUDY: Combining occlusion-based diagnosis and treatment with effective consultation software resulting in greater case success.

Developed by Dynamic Thought® and Don Reid DDS, the BiteFX™ animation software provides the dental professional with a simple to use, easy to present graphic tool for presentation of malocclusion concepts to the dental patient. BiteFX is compatible with Windows operating systems.*

ABSTRACT
As a former chair for the CDA Council on Peer Review Appeals Panel, I have evaluated many complaints lodged against dentists in California. This included peer-review evaluation based on standards of quality of care as well as arbitration of disputes of substandard outcomes. The majority of valid complaints concerning quality of treatment were related to occlusal disease (80%).**

Often times, treatment did not observe accepted protocols of diagnosis, treatment planning and correct placement of treatment into the occlusal scheme (recognition of occlusal principles). Dentists found to have provided substandard care are often ordered to reimburse the patient and/or provide corrective treatment, often making the dentist directly responsible for very expensive remedies. Proper diagnosis and treatment planning based on occlusal principles, combined with effective patient consultation using BiteFX animations significantly increases understanding, case acceptance and treatment success.

THE PROBLEM – Treatment failure.
The majority of problems that the dentists face are caused by treatment failure resulting from inadequate occlusal diagnosis (e.g., ceramic fracture, poor aesthetic outcome, bone loss, mobility of teeth, tooth pain, TMJ pain, and neuromuscular pain).

THE SOLUTION – Occlusion focus.
Simply put, the solution is to pay careful attention to occlusion. That is, go back to the tried-and-true principles of treatment analysis, diagnosis, and treatment planning with occlusal analysis, working within existing vertical dimensions or creating new vertical dimensions.

KEYS TO SUCCESS – The three components.
There are three components vital to total treatment success and patient satisfaction. They are:

- Prosthetic cosmetic restorative treatment.
- Dental implant treatment.
- Occlusion.

It is crucial to begin with a good diagnosis by following the problem to the disease. For example the dentists may see problems in the front of the mouth but the cause may actually be in the back (cause and effect). Important steps include accurately mounted casts and correct occlusal analyses (identify primary prematurities, faceting, missing teeth, direction to which the jaw is forced, mobility of teeth, and enamel wear).

Signs and symptoms of occlusal disease may also include popping and clicking of the TMJ, muscle soreness or tenderness, and/or deviation of the mandible on opening with possible limited ability to open the jaw. It is also essential to perform radiographic diagnosis specific for bone loss due to occlusal interferences.
TREATMENTS – Good planning sets up success.

Regardless of the case, the dentist must decide on the appropriate treatment plan before any corrective treatment is performed. When occlusal disease is diagnosed, all occlusal issues must be resolved first. There are essentially two ways to perform proper treatment 1) work within the existing vertical dimension and 2) create a new vertical dimension.

If working with the existing vertical dimension, the dentist must know how best to equilibrate for the existing condition and fit the treatment into that system. In addition, the dental lab must be counseled not to perform inappropriate re-contouring of the crown or bridge structures.

If creating a new vertical dimension, it’s not necessary to worry about existing occlusal interferences because the occlusion will be reconstructed. In this case the dental lab needs to understand that they are creating a new occlusal anatomy appropriate to the patient’s neuromuscular and joint positioning.

How to get this information into the patient’s head.

Explaining complex occlusal diseases and treatment plans to patients can often be a daunting challenge. Often times, patient photographs and carefully worded explanations are simply inadequate. To this challenge, I use a consultation tool called BiteFX. The software can be installed on standard PC computers and uses colorful, anatomically accurate animations to clearly convey occlusal disease to any patient, regardless of background. BiteFX lends credibility to the treatment recommendations. Because people process visual information faster than verbal communication, these concepts are readily understood by the patient.

Consultation to case acceptance made easier.

My preferred consultation technique is to sit the patient in front of a pair of monitors and manually display appropriate animation sequences beginning with the ideal, healthy mouth with no pain or disease using one monitor. I follow this by showing the appropriate pathology animations on the same monitor while showing actual photographs of the patient’s mouth on the second monitor. The synergy between the animations and the actual clinical photographs has a powerful impact on the patient and creates ownership of the problem. Once the patient owns the problem, the path to achieving case acceptance is made much easier. Patients appreciate education on occlusal disease and understand the value of extensive treatment recommendations.

RESULTS

- Every case is the same – they are all dependent on occlusion and BiteFX helps explain all cases.
- BiteFX creates credible interest by the patient immediately.
- I use this tool for virtually all of my consultations.
- Use of BiteFX has been a vital consultation tool for over two years and has increased my revenues by at least 20%.

For additional information or customer support, please contact BiteFX at 1.877.224.8339 or 1.530.582.1189.