



Instant Screening, Pain Relief and Bite Record System for Head, Neck and Facial Pain Due to Occlusal Interference

Outline for the Best-Bite™ Discluder Instruction Manual

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Recent clinical evidence estimates that as many as 40 million people who suffer from head, neck or facial pain actually have a problem with their bite. Even if your patients have been previously diagnosed with migraines, cluster headaches, tension headaches, sinus headaches or neck pain resulting from whiplash injuries, they may actually be suffering from muscle strain, spasm or fatigue directly caused by occlusal interference or secondarily triggered.

Patients could have pain due to occlusal interference if they:

- Have any head, neck or facial pain
- Have been diagnosed in the past with migraine, tension or cluster headaches
- Hear popping, clicking or grinding sounds in their jaws or ears
- Have a sore, tight, or stiff jaw in the morning or during chewing
- Think they have sinus or allergy related headaches
- Have recurring pain or ringing in their ear and the doctor cannot find anything wrong
- Get pain in the temples or forehead that feels like eye strain and their eyes have been checked
- Were in an accident and suffered a whiplash injury and the pain will not go away
- Need to take any headache pain medicines repeatedly
- Have been under a doctors treatment for HNFP symptoms without long term relief

I. Introduction

Head, neck and facial pain (HNFP) caused by occlusal interference is a very common problem that affects over 40 million people. Many of them are patients going in and out of dental offices every day undetected. In addition, recent research has found that eliminating pain due to muscle spasms caused by occlusal interference with bite treatment may decrease the responsiveness along the afferent fibers that travel along the same neural pathways, making patients less susceptible to other types of chronic pain, such as tension headaches, migraines and fibromyalgia. However, since most patients do not associate treatment for HNFP with the dentist, dentists must persistently question patients about any pain symptoms they experience as well as utilize Best-Bite™ Patient Education Brochures and Movies in common places, like the reception room, to help raise their patients' awareness of this common dysfunction.

While the Best-Bite™ Discluder's over 50 year old proven methodology can assist the doctor in making the diagnosis of occlusal interference faster and easier, you must carefully follow these instructions to ensure that you and your patients obtain the maximum benefit. Correct use of the device, as detailed in these instructions, the book, Stop Headaches Now and CD-ROM Taking the Bite Out of Headaches will help to ensure accurate diagnosis and help set realistic treatment expectations resulting in consistently successful treatment. Remember, using the Best-Bite™ Discluder to identify patients whose pain is probably not caused by occlusal interference and avoiding unsuccessful treatment is equally as valuable as identifying and treating those who will be responsive to bite treatment.

II. Benefits of the Best-Bite™ Discluder:

Diagnostic time saver: Any doctor, even those with minimal occlusal training, can use the device to assist in quickly and effectively screening patients for HNFP caused by occlusal interference before expensive MRIs, CAT scans or extensive dental records and work-ups are undertaken.

Psychological relief: The Best-Bite™ Discluder can give the patient psychological relief while they are in the treatment process. Pain of unknown origin can be extremely frightening. Many patients are afraid that they have a terrible disease such as a brain tumor. Just knowing what the problem is can be a great relief.

Proof for the patient: The pain is "turned off" by placing the Best-Bite™ Discluder on the patient's teeth. The pain "turns back on" once the Best-Bite™ Discluder is removed.

Any doctor can recommend and use the Best-Bite™

Discluder: An ear doctor, an internist, a neurologist, and a hospital ER doctor all see patients with complaints of pain that do not respond to standard medical diagnostic tests or treatment.

The Best-Bite™ Discluder can help them quickly and easily screen their patients for occlusal interference.

Temporary crutch: The Best-Bite™ Discluder can be used as a temporary crutch for the patient who has yet to experience complete relief during the treatment process. The Best-Bite™ Discluder allows the patient to reduce the muscle spasms and fatigue by wearing it for ten to fifteen minutes several times a day. Additionally, this application of the device is extremely effective in reinforcing the diagnosis that the bite is the problem as well as making sure patients will complete the suggested course of treatment.

Differential diagnosis: Since a patient can have simultaneous and multiple contributors to HNFP, the Best-Bite™ Discluder can help doctors separate the component of pain that is due to the bite. Additionally, the amount of relief provided by using the device can be used to set the doctor's and patient's expectations for relief upon completion of bite treatment.

Facilitates treatment: The Best-Bite™ Discluder should be used during the treatment process of splint adjustments or dental equilibration to break up muscle spasms and fatigue and assist in centering the jaw joints to ensure that adjustments are made to the ideal centered jaw position.

ligaments will not be able to create a stable fulcrum for the jaw joints. Any lever system must have a stable fulcrum in order to function. If the jaw is forced to slide onto the inclined slope of the emenentia, the muscles will be forced to hold the jaw joint stable to allow it to function under force. The jaw muscles, however, were not designed to function under a continuous load. Prolonged muscle contraction will always lead to muscle fatigue, strain and sometimes spasm and pain. This is no different than when a person over-stresses any other muscle group, such as in weight lifting. After many repetitions, the muscles will fatigue, possibly causing pain.

The only position where the jaw joint is braced without the necessity for continuous muscle activity and fatigue is the one in which the condyle is seated in the center of the jaw socket. This centered position is the position that the condyles would naturally assume if the biting surfaces of the teeth did not force the condyles to deviate for the teeth to fit together.

Even if patients do not experience clinically perceptible pain, the muscle spasms and fatigue make it hard for doctors, and impossible for the patient, to achieve a centered position.

The Best-Bite™ Discluder is designed to solve this problem with its patented design. The flat surface of the functional incisal plane lets the lower incisors move freely side to side on a lateral horizontal plane so the condyles are free to move to a centered position without tooth interference. The eight degree distal tilt of the functional incisal table further allows the lower incisors to move freely antero-posterior and inferior-superior without tooth interference so the condyles are free to move rearward and upward. The Best-Bite™ Discluder, acting as the fulcrum and the muscles, acting as the force, prohibit occlusal interference and allow the condyles to seat upward into a centered position. Once this is achieved, the muscles no longer need to brace the condyles in an unstable position, the jaw muscle spasm and fatigue is quickly released, and the corresponding pain stops.

Although this concept of reversing the fulcrum is mechanically logical, it is difficult to accomplish. The muscle spasms and fatigue caused by occlusal interference makes it hard to center the jaw joints. When diagnosis and treatment has failed in the past, it was not because the concept of a centered jaw joint is invalid, but because of the failure to achieve this centered position. The Best-Bite™ Discluder is the solution because it assists any doctor in determining the nature of the problem, whether they understand the biomechanics or not.

A. CORRECT BITE

Teeth meet and the jaw is centered



B. CONFLICT

Jaw is centered but the teeth can not fit together properly



C. CONFLICT BITE

Teeth together but the jaw is pulled out of position



D. WITH BEST-BITE

Teeth cannot pull jaw out of socket



III. Biomechanics of the Jaw Joints

The temporomandibular joint is a class II lever. The joint is the fulcrum. The muscles are the force. The teeth or the food between the teeth is the resultant. In order to avoid stress, muscle spasms and fatigue in the main positioning muscles (lateral pterygoid) and main elevating muscles (masseter, internal pterygoid and temporalis) or severe damage to the teeth, the teeth must not force the jaw, and thereby force the condyles, out of the centered position in the jaw socket. If the teeth do pull the jaw out of the centered position in the socket, the bones and

IV. Best-Bite Discluder™ Kit Contents

The Best-Bite™ Discluder is assembled by the doctor and consists of five components:

1. Best-Bite™ Discluder - A high-density polyethylene molded device worn on the front teeth. The surface on the bottom of the bite former is flat from side to side but is inclined at an 8 degree angle from anterior to posterior. This patented design gently assists the lower front teeth to center and slide up and back so the jaw joints can center in the sockets.
2. Safety Strap - The front of the bite former has an extension with a hole in it that protrudes out of the user's mouth. The hole allows the safety strap to fit on the Best-Bite™ Discluder in the

same way that a neck strap attaches to a whistle. CAUTION: Always put the safety strap around the patient's neck before putting the Best-Bite™ Discluder in his or her mouth.

3. Instructions Package - Includes instructions for patients and doctors, medico-legal release, diagnostic flow sheets and survey forms. Duplication is encouraged to make certain that each patient receives proper instructions and signs the release.
4. Storage Cases - An attractive storage case is provided to hold the Best-Bite™ Discluder when it is not being used by the patient.
6. Stop Headaches Now (Not in all kits) - This book provides vital information outside the scope of this packet and should be reviewed prior to device use. It can also be a great educational tool for patients, referral sources and staff. The book can be ordered separately in larger quantities at a substantial discount. Note: Only included in introductory kit.
6. Taking the Bite Out of Headaches (Not in all kits)- This CD-ROM will play in any PC and Macintosh and includes 2 vital movies. The first is an educational piece about bite problems. The second is an actual demonstration of how the Best-Bite™ Discluder is used. It can also be a great educational tool for patients, referral sources and staff. The CD-ROM can be ordered separately in larger quantities at a substantial discount.
7. In order to custom fit the Best-Bite Discluder to the patients teeth it must be relined. For short term use we recommend a fast set (1 minute set time) heavy body bite registration material. For longer term use we recommend using an appropriate intra-oral approved acrylic. Be sure to follow the instructions and safety precautions of the material manufacturer.

V. Diagnostic Process

1. Ask all of your patients, especially those with signs of tooth clenching and grinding, if they get any HNFP. Often the question must be rephrased several times, since most people do not associate their bite or teeth with headaches. Many dentists report that patients who suffer from daily headaches often fail to convey this information until they have been asked several times.
2. Examine the patient's teeth for signs of occlusal wear or symptoms of biomechanical dental disease, such as gum recession (fig. 1), worn (fig. 2), chipped (fig. 3), abfractured (fig. 4) or cracked (fig. 5) teeth.
3. Ask the patient to close their teeth until the point of first occlusal contact and stop. Upon closing the rest of the way, note any slide or movement of the teeth as they go from first contact to full closure. (Fig. 6 and Fig. 7)
4. Ask the patient to rate their current head, neck or facial pain symptoms from 1 to 10, with 1 being no pain and 10 being severe pain. Typically this process works best with patients who have at least some pain at the time of visit. It is important to note that because many patients have had HNFP for a long time, they are used to it. It is only after the pain stops that they realize what "normal" feels like.
5. Palpate the lateral pterygoid (Fig. 8) as well as temporalis, masseter, and muscles of the neck and shoulders, noting the level of pain. If there is a painful response, ask the patient to palpate the muscles themselves, especially the lateral pterygoid.
6. Fit the patient with the Best-Bite™ Discluder as described in section VI of these instructions and note any changes in HNFP symptoms and pain to muscle palpation on a 1 to 10 scale so they realize how sore they actually are.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8

VI. Custom Fitting the Discluder In Seconds

1. Seat the patient in a reclined position and ask them to rate their current pain from 1 to 10.
2. Place the bite registration material (Recommended: Heavy body, not too hard setting, 1 minute set time) or acrylic in the Discluder so that the bite former is evenly filled. (Fig. 9)
3. Place the Best-Bite™ Discluder on the upper central incisors so that the top teeth bite into the custom liner material. The bite former should sit squarely on the teeth so that the flat surface on the bottom is parallel to the incisal edges. The extension for the safety strap should be centered. (Fig. 10)
4. Immediately after seating the bite former on the top front teeth, the patient should slowly tap their front bottom teeth against the inclined plane of the bite former. (Fig. 11)
5. The doctor should guide the patient to gently tap their teeth against the Best-Bite Discluder. Instruct the patient to **aim to bite on their back teeth** with a gentle force, so the lower jaw does not protrude, at a rate of 10-12 taps per minute. (Fig. 12)
6. Continue tapping gently for approximately 2 minutes.
7. Ask the patient to pause tapping and rate their pain from 1 to 10 and note the improvement.
8. Some patients may need longer to feel relief. They may be left reclined to gently tap for 10-15 minutes off and on.
9. If there is pain relief, ask the patient to rate their pain again, between 1 and 10, and note the change from the baseline rating.
10. Palpate the lateral pterygoid, masseter and temporalis muscles, noting any change in the level of pain.
11. Use the pain relief provided by the Discluder as a means of setting treatment outcome expectations for the patient.

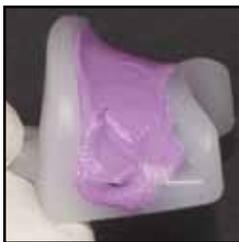


Figure 9

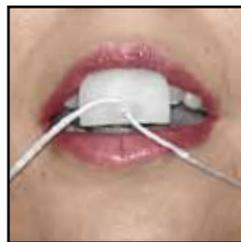


Figure 10



Figure 11



Figure 12

VII. Interpreting Results

If the patient's pain is from muscle strain, fatigue and spasms due to a conflict between the biting surfaces of their teeth and their jaw joints, the muscle fatigue and spasms will be relieved and the pain reduced. Often, pain can be reduced by 50% to 75% with in 2-3 minutes.

Some people will have total pain relief in under one minute. Others will have gradual relief over several minutes with gentle assisted tapping. If you find the patient has signs of occlusal interference, a conflicted bite or muscle soreness, give them several minutes as their bite is probably the problem.

The Best-Bite™ Discluder always works. Even if it doesn't take away the pain, the doctor has accomplished something important. The doctor has determined that the patient's pain is not predominantly due to their bite. The doctor will have to go back to his or her differential diagnosis and start over or refer the patient. Spending 15 minutes to use the Best-Bite™ Discluder is clearly more efficient than spending hours on a custom made dental splint or equilibration.

It is vital to note that pain related to occlusal interference can also be caused by internal derangement of the jaw joints. Examples include swelling and edema in the joint, arthritis, retro discitis, osteochondrosis and avascular necrosis. If the Best-Bite™ Discluder does not substantially relieve the pain, it is likely that the pain is not predominantly due to muscle strain, fatigue or spasm from occlusal interference. If there is concern that the patient could be suffering from one of the aforementioned conditions, appropriate diagnosis of these conditions should include Doppler Ultrasound and imaging, such as TMJ x-rays, CAT scans or MRIs. These conditions are thought to cause predominant jaw pain in less than 10-15% of the population with bite problems. Their diagnosis and treatment is beyond the scope of these instructions. Patients who are thought to have these advanced conditions should be referred to a doctor familiar with treating these problems.

VIII. Important Notes & Suggestions

1. Most patients feel significant relief in less than two minutes if muscle fatigue, strain or spasm due to occlusal interference is the predominant cause of their HNFP.
2. The Discluder can be used by the patient between visits as needed to manage acute pain until the treatment process has provided relief.
3. Do not attempt to force the jaw in any way as that will increase the intensity and frequency of the patient's muscle spasms and fatigue, prohibiting the centering of the jaw. **Gently** guide the mandible up and back (Figure 12).
4. Sometimes patients have a bite splint that has not been successful in relieving their pain. Before assuming that the bite is not the problem or that it is "stress or tension," consider the possibility that bite splint was not adjusted to a centered jaw position. If using the Best-Bite™ Discluder relieves the pain, make a new splint and adjust the splint to the pain free jaw position that the Best-Bite™ Discluder has helped you find. (See [Stop Headaches Now](#), Chapter 9, Treatment Options.)

5. There are multiple causes of HNFP. The Best-Bite™ Discluder helps the doctor and patient pre-experience how the patient will feel when their teeth are not pulling the jaw joint out of the socket and the pain from the muscle spasms and fatigue goes away. Any symptoms that might remain after using the Best-Bite™ Discluder, such as pain in a particular area, ringing in the ear, dizziness, etc. are unlikely to be affected by bite treatment. Never try to talk the patient into feeling better. Also be aware of patients with secondary gain issues. (See [Stop Headaches Now](#), Chapter 7, Pain and TMJ Dysfunction Syndrome.)
6. Use the Best-Bite™ Discluder during every treatment visit to ensure that the jaw joints are centered. Often, the lack of success in bite treatment occurs not because the bite was not the problem, but because the jaw was not centered prior to and during treatment. Using the Best-Bite™ Discluder to break up muscle spasms and fatigue and center the jaw joints during treatment helps to make certain that adjustments are being made to a centered jaw position.
7. Occlusal interference can frequently stimulate tooth clenching and grinding, which causes biomechanical dental disease with little or no head, neck and facial pain. These patients need bite treatment and the Best-Bite™ Discluder will help relieve muscle spasms to center the jaw joints for accurate bite records and treatment. If they do not have pain symptoms, using the Best-Bite™ Discluder will not change how they **feel**. Therefore, in these instances the Best-Bite™ Discluder need not be used at home. However, it still should be used during treatment to center the jaw joints.

IX. Insurance and Billing Information

The Best-Bite™ Discluder should be used as part of a comprehensive 4-Step Occlusal Examination. This process is demonstrated on the [Taking the Bite Out of Headaches](#) CD-ROM. The fee for occlusal examination using the Best-Bite™ Discluder is comparable to a composite restoration and should include a clinical examination similar to that in the movie. In addition, the practitioner should add relevant fees for additional diagnostic procedures that they deem appropriate such as panoramic x-rays, CAT scans, MRIs, diagnostic models and Doppler Ultrasound evaluations. (For more information see [Stop Headaches Now](#), Chapter 4, Screening for TMJ Dysfunction.)

While some patients' dental insurance does provide reimbursement for occlusal therapy, we recommend billing the medical insurance carrier to ensure that this therapy does not deplete their limited dental benefits and to maximize the patient's reimbursement. In order to submit medical billing, you will need to use the specific medical codes for **diagnosis** and **treatment** as well as the medical form supplied by the patient.

Medical / Dental Insurance should reimburse the patient for bite treatment that is provided for the relief of pain due to muscle fatigue, strain or spasm caused by occlusal interference, but because every patient's medical and dental insurance is different, you must be very careful to make sure the patient understands that the quality of their insurance is based on a contract between their employer and the insurance company. Whether they do or do not have insurance coverage for these procedures is in no

way related to their medical / dental problem and the necessary treatment.

Medical Diagnostic Codes

- 524.63 - Crepitus / articular disc disorder
- 784.0 - Head and/or facial pain
- 729.1 - Myalgia and myositis
- 524.10 - Abnormalities of the relationship of the jaw
- 524.60 - Temperomandibular disorders unspecified
- 723.35 - Spasm of muscle
- 728.4 - Laxity of ligament

Medical Treatment Codes

- 99214 - Evaluation and management
- 70250 - Imaging lateral skull
- 70328 - Imaging TMJ open and closed
- 70355 - Imaging panoramic
- 95999 - Doppler auscultation
- 97750 - Diagnostic Photographs
- 95831 - Muscle testing
- 95851 - Range of motion
- 20999 - Pain release orthotic
(Use for Best-Bite™ Discluder)
- 97112 - Neuromuscular reduction
- 99530 - Spray and stretch
- 09952 - Occlusal adjustment complete
- 09940 - Occlusal guard
- 97265 - Joint mobilization

Dental Codes

- 99530 - Spray and stretch
- 09952 - Occlusal adjustment complete
- 09940 - Occlusal guard

XI. Precautions

1. This device must be used under the supervision of a doctor.
2. Use of the Best-Bite™ Discluder implies that the doctor has read all of these instructions and precautions, accepted them and will give patients the enclosed instructions and secure a medical release before dispensing the Best-Bite™ Discluder to them.
3. This device must only be used for adults over the age of 18 or for children with strict parental supervision.
4. The doctor understands that this device is removable from the teeth and cannot make any permanent changes to the teeth or bite when used according to the instructions.
5. The patient must not have loose front teeth, bridges, fillings or large open cavities in the front teeth.
6. Always follow the instructions and precautions of the manufacturer who material is being used for re-lining of the Best-Bite Discluder.
7. Although there are no known allergies to the materials in this kit, the user must stop using the Best-Bite™ Discluder if any reactions develop, such as a rash, sensitivity or increased pain.
8. The Best-Bite™ Discluder is supplied non-sterile.
9. Always use the safety strap.

XII. Cleaning Instructions:

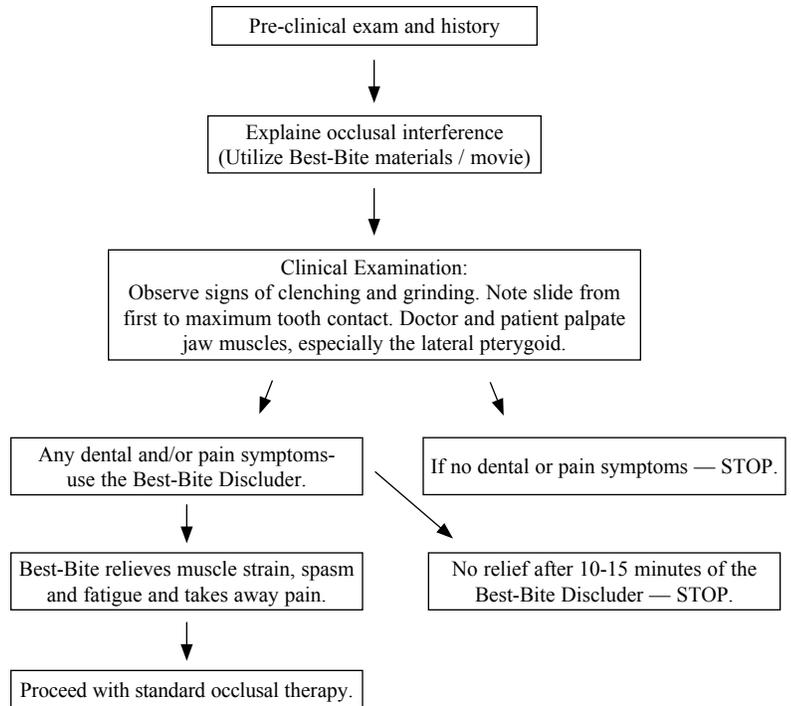
Wash gently under cold running water after removal from the mouth. Rinse with a mixture of ½ water and ½ non-alcohol mouthwash.

For more information, questions, comments or suggestions please call (800) 626-5651 or visit www.whipmix.com.



RESTORATIVE ORAL HEALTH

XIII. Diagnostic Flow Chart



XIV. 3 Minute Bite Records

The Best-Bite™ Discluder will take your patients from occlusal muscle pain and an un-centered jaw position to pain relief and verifiable and repeatable bite records in less than 3 minutes.

