

Managing The Oral Effects Of Fibromyalgia

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Upon the completion of this article, the reader will be able to:

- ✓ Describe the various ways in which a dry mouth complicates the management and health of the oral cavity;
- ✓ Explain approaches to address these challenges;
- ✓ Elucidate the oral and dental findings likely to be encountered in an individual with fibromyalgia syndrome;
- ✓ Illustrate the oral findings and complications to dental therapy likely to be encountered in patients taking one or more prescription medications;
- ✓ Describe the factors involved in preventing problems associated with dry mouth;
- ✓ Review products helpful in treating xerostomia (dry mouth).

The classic symptoms of fibromyalgia syndrome (FMS) are widespread pain, fatigue, and multiple tender points. Individuals with this syndrome may also experience sleep disturbances, morning stiffness, irritable bowel syndrome, and anxiety. Chronic headaches, temporomandibular joint dysfunction syndrome (TMJD), and dry eyes and mouth are often present. Fibromyalgia is sometimes confused with chronic fatigue syndrome.

No one knows exactly what causes fibromyalgia, but links have been found to central nervous system trauma, infection, and low levels of certain biochemicals, such as cortisol and serotonin. Women are four to seven times more likely than men to develop the disorder, and women of childbearing age are especially susceptible.

Fibromyalgia syndrome, chronic fatigue syndrome (CFS), multiple chemical sensitivity syndrome (MCS), myofascial pain syndrome (MPS), and several other conditions may form a family of overlapping syndromes. Muhammad Yunus, M.D., suggests that most patients have more than one syndrome. He views FMS and CFS as being part of a larger

continuum of conditions which he calls Dysregulation Spectrum Syndrome or DSS (see Figure 1). Dr. Yunus uses the term dysregulation to mean biophysiological abnormalities, possibly in the neurohormonal system.

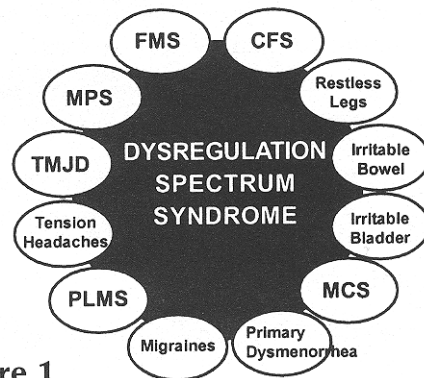


Figure 1

Note: More recently, Dr. Yunus has referred to DSS as Central Sensitivity Syndromes (CSS).

The drugs usually prescribed for muscular pain: nonsteroidal anti-inflammatory drugs such as aspirin, ibuprofen, and naproxen are often ineffective at treating fibromyalgia. Occasionally, injections of anesthetics or corticosteroids (synthetic hormones with anti-inflammatory properties) are used to relieve pain in the myofascial trigger points that sometimes accompany FMS. Narcotic pain medications are usually avoided except in extreme cases due to their addictive properties. Antidepressants, particularly fluoxetine (Prozac), nortriptyline (Pamelor), trazodone (Desyrel), doxepin (Sinequan), and amitriptyline (Elavil or Endep) alleviate pain and sleeplessness in some cases. Clinical trials have demonstrated that a combination of fluoxetine and amitriptyline works better than either drug alone. In other studies, tramadol (Ultram) has been shown effective in some patients.

Low-dose antidepressants are sometimes effective as sleep aids. The muscle relaxant cyclobenzaprine (Flexeril) may temporarily help to improve sleep and reduce pain. For persons having severe sleep problems, the drug zolpidem tartrate (Ambien) may be prescribed for short intervals. Also helpful are standard non-medical remedies such as avoiding caffeine, skipping naps, avoiding alcohol, consistently going to bed at the same time every night, and being outside every day for some time between 7 and 9 a.m. to help reset the biological clock.

There are many side effects to prescription and over the counter (OTC) medications and herbs, the above included. In this article, I would like to address xerostomia, or dry mouth. Dry mouth is the condition of not having enough saliva, or spit, to keep your mouth wet. It is associated with a decrease in salivary flow and/or alterations in salivary composition. Xerostomia can cause difficulties in tasting, chewing, swallowing, and speaking; can increase your chance of developing dental decay and other infections in the mouth; can be a sign of certain diseases and conditions; or can be caused by certain medications or medical treatments. It is NOT a normal part of aging. Symptoms may

include:

- a sticky, dry feeling in the mouth
- malodor (bad breath)
- frequent thirst
- trouble chewing, swallowing, tasting, or speaking
- a burning feeling in the mouth
- a dry or sore feeling in the throat, or hoarseness
- cracked lips
- a dry, tough or burning tongue (glossodynia)
- mouth sores or ulcerations
- increase in dental caries or periodontal disease
- difficulty wearing dentures
- frequent or recurrent infections in the mouth

Saliva contains enzymes that help to digest food and provides lubrication that makes it comfortable to chew and swallow. It allows us to “taste” food. It is antibacterial and protects the teeth from dental caries (decay) by buffering acid and remineralizing enamel. Saliva also prevents infection by controlling bacteria, viruses, and fungi in the mouth. Lack of saliva, or an inadequate amount, predisposes an individual to high levels of discomfort, decrease in nutritional status, increase in oral diseases, and a general decreased quality of life. Treatment of xerostomia focuses on three areas: relieving symptoms, preventing tooth decay, and increasing the flow of saliva, if possible.

Tips for relieving symptoms of dry mouth that result from medication use are:

- Sip water or sugarless drinks often.
- Avoid drinks with caffeine, such as coffee, tea, and some sodas. Caffeine can dry out the mouth.
- Sip water or a sugarless drink during meals. This will make chewing and swallowing easier, and may improve the taste of food.

- Chew sugarless gum or suck on sugarless hard candy to stimulate saliva flow; citrus, cinnamon, or mint-flavored candies are good choices.
- Do not use tobacco or alcohol, as they further dry the tissues of the mouth.
- Avoid spicy or salty foods which may cause pain in a dry mouth.
- Use a humidifier at night.

If you are unsure if your dry mouth is caused by medication, it is important to obtain a definitive diagnosis, etiology, and prognosis of the salivary dysfunction. Salivary flow assessment and function tests, other laboratory tests, and referrals to specialists can be performed as necessary. Management of the condition depends upon its diagnosis and severity, and may include increasing salivary flow and fluid, oral moisture and comfort, controlling soft tissue infections and pain, and preventing recurrent caries. A dental hygienist and/or dentist can provide oral disease prevention strategies and therapies for xerostomic clients.

Visit an oral health care professional (dental hygienist and/or dentist) to achieve and maintain optimal oral and general health. Gently brush your teeth four times per day (after each meal and at bedtime) with a very soft toothbrush, and floss every day. Dentures should be cleaned after every meal. Use a fluoridated toothpaste and avoid sticky, sugary foods. If you do eat sugar containing foods, brush or at least rinse immediately afterwards. Avoid rinses containing alcohol, as they are very drying. Salivary substitutes or artificial saliva preparations may relieve discomfort by temporarily wetting the mouth and replacing some of the constituents of saliva. Visit your dental hygienist and dentist for a check-up at least twice a year, or at the suggested interval. You might be advised to use fluoride daily to prevent dental decay.

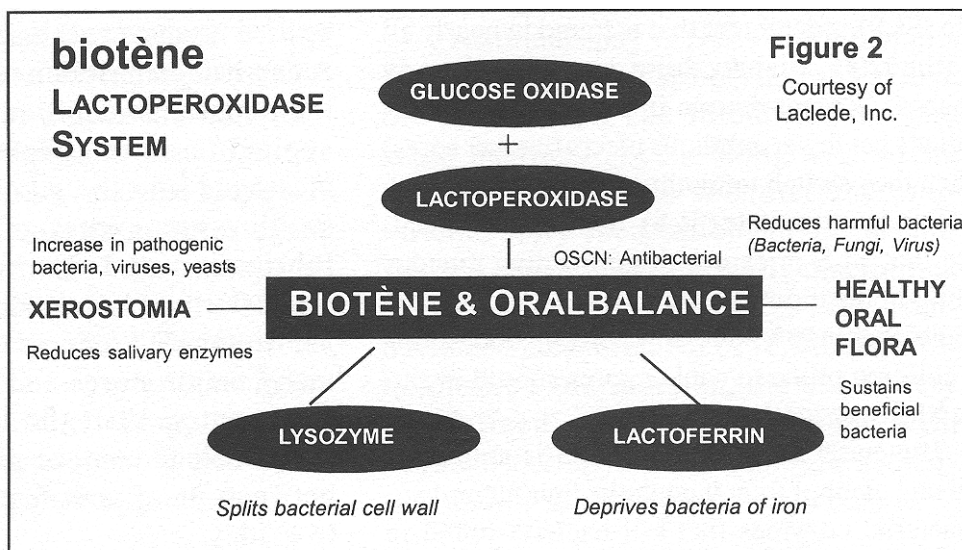
Treatment of xerostomia is based on the severity of the condition and the cause. Fluoride treatments can be prescribed to help prevent cavities, and artificial saliva products are available over the counter in rinse and spray forms. Depending on your medical condition and diagnosis, a physician may prescribe oral pilocarpine, a drug that stimulates saliva secretion.

The Laclede Company makes Biotène products containing antibacterial enzymes found naturally in human saliva. Together, these ingredients re-create the natural oral protection found in the mouth, providing antibacterial and healing properties. These bio-enzyme products can help maintain a healthy balance of oral flora, reducing harmful bacteria while sustaining beneficial bacteria. Biotène products can be recommended for those with FMS, and everyone susceptible to cavities, bad breath, mouth sores, and gum disease.

Saliva is the clear, usually alkaline, somewhat viscid secretion from three major pairs of saliva glands of the mouth: the parotid, submaxillary, and sublingual. These form the naturally occurring protective system of the oral cavity. Saliva consists primarily of water but also contains enzymes and other proteins, small organic molecules, electrolytes,

and constituents of non-salivary origin. When the amount of saliva is disrupted for any reason, this antibacterial defense system is lost. Biotène salivary enzyme products are capable of protecting the mouth the same way that saliva does.

The primary asset of Laclede’s Biotène and Oralbalance products is that they contain three enzymes and one protein found naturally in human saliva. Together, these ingredients restore the natural oral balance found in the mouth, providing antibacterial and healing properties. Biotène and Oralbalance contain an optimum concentration of a natural enzyme system that regulates the microbiological oral ecosystem: Glucose Oxidase and Lactoperoxidase. These two enzymes work as a system to generate a constant flow of OSCN ions (hypothiocyanite), a strong antibacterial agent that should always be present in saliva. In addition, Biotène and Oralbalance contain lysozyme, an enzyme which splits the cell wall of pathogenic bacteria; and lactoferrin, an iron-binding protein which inhibits pathogenic bacteria by depriving them of iron. The combination of these natural ingredients creates a salivary enzyme system that helps maintain a healthy balance of oral flora. (See Figure 2)



Biotène® Dry Mouth Toothpaste contains three primary enzymes: Glucose Oxidase, Lactoperoxidase, and Lysozyme. It inhibits harmful microorganisms associated with gingivitis and oral irritations. It promotes oral healing and attacks both the causes and effects of malodor (bad breath). It does not contain Sodium Lauryl Sulfate (SLS), a detergent that is found in nearly all toothpastes, dishwashing soaps, and body washes. Recent reports imply that some individuals get fewer aphthous ulcers (canker sores) when they switch to toothpaste that contains no SLS. Researchers speculate that SLS dries out the protective mucous lining in the mouth, making it susceptible to irritants that may lead to aphthous ulcers. Adults and children prone to canker sores should evaluate SLS-free toothpaste.

Biotène® Gentle Mouthwash is antibacterial and alcohol free. It contains four natural antibacterial enzymes that kill bacteria found in oral infections and gingivitis without any side effects. Biotène contains salivary enzymes that boost the defense system normally found in your mouth. It helps protect the teeth and oral tissues and promotes healing. A product without alcohol is preferred.

Biotène® Dry Mouth Chewing Gum is naturally sweetened with Xylitol and relieves oral dryness. Xylitol is a natural substance that has been shown in clinical trials to significantly reduce dental decay and to reduce the build up of plaque. It prevents decay by inhibiting the bacteria streptococcus mutans. Chewing gum has been shown to stimulate saliva flow and provide additional protection to the teeth. When used daily, the active enzymes in Biotène can be effective in protecting the teeth between brushings.

Perhaps the most effective product is Oralbalance® Long-Lasting Moisturizing Gel. This is a new type of oral lubricant formulated to promote healing as it moistens. It contains the Biotène protective salivary enzyme system which helps inhibit harmful bacteria. It soothes and protects dry oral tissues from minor irritations and itching and burning sensations for up to 8 hours. It contains antibacterial enzymes to neutralize odors and unpleasant tastes and is a non-drying formula appropriate for mouth breathers. This product improves retention under dentures and is sugar-free. Oralbalance® can be used whenever necessary to relieve dryness. A one-half inch ribbon of gel is applied onto the tongue; an additional amount of gel is applied to other affected areas and can be massaged into the gum tissue. It is safe to swallow any excess gel to assist in throat lubrication and can be repeated several times daily as required.

Biotène® products can be purchased in many major stores and drug chains across the country. Visit the Laclede website at: www.laclede.com, or phone 800/922-5856 between 8 a.m. and 5 p.m. (PST) Monday to Friday.

Portions of this article have been excerpted from the booklet, *Dry Mouth*, published by the National Institute of Dental and Craniofacial Research (NIDCR) of the National Institutes of Health (NIH Publication No. 99-3174, e-posted December 1999). For copies of this publication, contact: National Oral Health Information Clearinghouse, 1 NOHIC Way, Bethesda, MD 20892-3500. Phone: 301/ 402-7364. It is also available online: www.nohic.nidcr.nih.gov/pubs/drymouth/dmouth.htm.

Maria Perno Goldie has presented seminars nationally/ internationally on topics such as Women's Health and Wellness, Oral Care for the Cancer Patient, Oral Cancer, and Immunology and Periodontal Disease. She is a member of the International Association for Dental Research (IADR), Oral Health Research Group, the American Dental Education Association (ADEA), and is an American Dental Hygienists' Association (ADHA) delegate to the International Federation of Dental Hygienists' (IFDH). Maria was appointed to the National Women's Health Resource Center (NWHRC), Women's Health Advisory Council and reviews content for its website. She is on the Advisory Board of Dental X Change, the largest commercial dental Internet website. Email her at: mariaperno1@attbi.com,

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